

**THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION**

FUNDAMENTAL INNOVATION	§	
SYSTEMS INTERNATIONAL LLC,	§	
	§	
v.	§	CASE NO. 2:16-cv-1425-JRG-RSP
	§	
LG ELECTRONICS INC., et al.	§	
	§	

CLAIM CONSTRUCTION
MEMORANDUM OPINION AND ORDER

On March 26, 2018, the Court held a hearing to determine the proper construction of disputed claim terms in United States Patents No. 7,239,111, 7,791,319, 7,834,586, 7,893,655, 7,999,514, 8,232,766, and 8,624,550. Having reviewed the arguments made by the parties at the hearing and in their claim construction briefing (Dkt. Nos. 123, 127 & 130),¹ having considered the intrinsic evidence, and having made subsidiary factual findings about the extrinsic evidence, the Court hereby issues this Claim Construction Memorandum and Order. *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1314 (Fed. Cir. 2005); *see also Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 135 S. Ct. 831, 841 (2015).

¹ Citations to documents (such as the parties' briefs and exhibits) in this Claim Construction Memorandum and Order refer to the page numbers of the original documents rather than the page numbers assigned by the Court's electronic docket unless otherwise indicated.

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I. BACKGROUND

Plaintiff Fundamental Innovation Systems International LLC (“Plaintiff” or “Fundamental” or “FISI”) has alleged infringement of United States Patents No. 7,239,111 (“the ’111 Patent”), 7,791,319 (“the ’319 Patent”), 7,834,586 (“the ’586 Patent”), 7,893,655 (“the ’655 Patent”), 7,999,514 (“the ’514 Patent”), 8,232,766 (“the ’766 Patent”), and 8,624,550 (“the ’550 Patent”) (collectively, the “patents-in-suit”) by Defendants LG Electronics, Inc., LG Electronics U.S.A., Inc., LG Electronics Mobilecomm U.S.A. Inc., LG Electronics Mobile Research U.S.A. LLC, LG Electronics Alabama, Inc., Huawei Investment & Holding Co., Ltd., Huawei Technologies Co., Ltd., Huawei Device USA, Inc., and Futurewei Technologies, Inc. (collectively, “Defendants”). Plaintiff submits that the patents-in-suit relate to “battery charging and power management.” Dkt. No. 123 at 1.

The ’111 Patent, titled “Universal Serial Bus Adapter for a Mobile Device,” issued on July 3, 2007, and bears an earliest priority date of March 1, 2001. The ’586 Patent, ’766 Patent, and ’550 Patent are continuations of the ’111 Patent, and these patents share the same specification. *See* Dkt. No. 103 at 1 n.1. The Abstract of the ’111 Patent states:

An adapter for providing a source of power to a mobile device through an industry standard port is provided. In accordance with one aspect of the invention, the adapter comprises a plug unit, a power converter, a primary connector, and an identification subsystem. The plug unit is operative to couple the adapter to a power socket and operative to receive energy from the power socket. The power converter is electrically coupled to the plug unit and is operable to regulate the received energy from the power socket and to output a power requirement to the mobile device. The primary connector is electrically coupled to the power converter and is operative to couple to the mobile device and to deliver the outputted power requirement to the mobile device. The identification subsystem is electrically coupled to the primary connector and is operative to provide an identification signal.

The ’319 Patent, titled “Circuit and Method of Operation for an Electrical Power Supply,” issued on September 7, 2010, and bears a filing date of February 21, 2003. The ’514

Patent is a continuation of the '319 Patent, and these patents share the same specification. *See*

Dkt. No. 103 at 1 n.2. The Abstract of the '319 Patent states:

A battery charging circuit comprising: a semiconductor switch having an output connected to a rechargeable battery; a battery charge controller for receiving power from an external source, and supplying output power to a portable device and the input of the semiconductor switch, the current output of the battery charge controller being controllable; and a voltage sensing circuit for: measuring the voltage drop across the battery charge controller; and responding to the voltage drop across the battery charge controller by modulating the semiconductor switch to reduce the quantity of current supplied to the rechargeable battery when the voltage drop is too great; whereby the total power dissipated by the battery charge controller is controlled, the portable device receiving the power it needs to operate and the rechargeable battery receiving any additional available power.

The '655 Patent, titled "Charging and Power Supply for Mobile Devices," issued on February 22, 2011, and bears an earliest priority date of December 13, 2005. The Abstract of the '655 Patent states:

Charging and power supply for mobile devices is disclosed. A USB-compliant charging and power supply circuit includes switch-mode battery charging circuitry for receiving power from an external power source and for supplying output power through an output node to an electronic system of an electronic communication device and a battery. Battery isolation circuitry includes a semiconductor switch connecting the output node to the battery. The battery isolation circuitry senses voltage at the output node and variably restricts current to the battery when the voltage is below a minimum voltage value by operationally controlling the semiconductor switch as current passes through it. During variable current restriction the electronic system is supplied required power with said battery being supplied any additional available power.

Plaintiff has referred to these three groupings of the patents-in-suit as "the Fischer Patents," "the '319 Patent Family," and "the '655 Patent," respectively. The '319 Patent Family and the '655 Patent, together, have sometimes been referred to as "the Veselic Patents."

The Court has previously construed terms in the patents-in-suit in *Fundamental Innovation Systems International LLC v. Samsung Electronics Co., Ltd., et al.*, No. 2:17-CV-145, Dkt. No. 140 (E.D. Tex. Jan. 31, 2018) ("*Samsung*").

Shortly before the start of the March 26, 2018 hearing, the Court provided the parties with preliminary constructions with the aim of focusing the parties' arguments and facilitating discussion. Those preliminary constructions are noted below within the discussion for each term.

II. LEGAL PRINCIPLES

"It is a 'bedrock principle' of patent law that 'the claims of a patent define the invention to which the patentee is entitled the right to exclude.'" *Phillips*, 415 F.3d at 1312 (quoting *Innova/Pure Water Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004)). Claim construction is clearly an issue of law for the court to decide. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 970–71 (Fed. Cir. 1995) (en banc), *aff'd*, 517 U.S. 370 (1996). "In some cases, however, the district court will need to look beyond the patent's intrinsic evidence and to consult extrinsic evidence in order to understand, for example, the background science or the meaning of a term in the relevant art during the relevant time period." *Teva*, 135 S. Ct. at 841 (citation omitted). "In cases where those subsidiary facts are in dispute, courts will need to make subsidiary factual findings about that extrinsic evidence. These are the 'evidentiary underpinnings' of claim construction that we discussed in *Markman*, and this subsidiary factfinding must be reviewed for clear error on appeal." *Id.* (citing 517 U.S. 370).

To determine the meaning of the claims, courts start by considering the intrinsic evidence. *See Phillips*, 415 F.3d at 1313; *see also C.R. Bard, Inc. v. U.S. Surgical Corp.*, 388 F.3d 858, 861 (Fed. Cir. 2004); *Bell Atl. Network Servs., Inc. v. Covad Commc'ns Group, Inc.*, 262 F.3d 1258, 1267 (Fed. Cir. 2001). The intrinsic evidence includes the claims themselves, the specification, and the prosecution history. *See Phillips*, 415 F.3d at 1314; *C.R. Bard*, 388 F.3d at 861. Courts give claim terms their ordinary and accustomed meaning as understood by one of

ordinary skill in the art at the time of the invention in the context of the entire patent. *Phillips*, 415 F.3d at 1312–13; *accord Alloc, Inc. v. Int’l Trade Comm’n*, 342 F.3d 1361, 1368 (Fed. Cir. 2003).

The claims themselves provide substantial guidance in determining the meaning of particular claim terms. *Phillips*, 415 F.3d at 1314. First, a term’s context in the asserted claim can be very instructive. *Id.* Other asserted or unasserted claims can aid in determining the claim’s meaning because claim terms are typically used consistently throughout the patent. *Id.* Differences among the claim terms can also assist in understanding a term’s meaning. *Id.* For example, when a dependent claim adds a limitation to an independent claim, it is presumed that the independent claim does not include the limitation. *Id.* at 1314–15.

“[C]laims ‘must be read in view of the specification, of which they are a part.’” *Id.* at 1315 (quoting *Markman*, 52 F.3d at 979 (en banc)). “[T]he specification ‘is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.’” *Phillips*, 415 F.3d at 1315 (quoting *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)); *accord Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1325 (Fed. Cir. 2002). This is true because a patentee may define his own terms, give a claim term a different meaning than the term would otherwise possess, or disclaim or disavow the claim scope. *Phillips*, 415 F.3d at 1316. In these situations, the inventor’s lexicography governs. *Id.* The specification may also resolve the meaning of ambiguous claim terms “where the ordinary and accustomed meaning of the words used in the claims lack sufficient clarity to permit the scope of the claim to be ascertained from the words alone.” *Teleflex*, 299 F.3d at 1325. But, “[a]lthough the specification may aid the court in interpreting the meaning of disputed claim language, particular embodiments and examples appearing in the

specification will not generally be read into the claims.” *Comark Commc’ns, Inc. v. Harris Corp.*, 156 F.3d 1182, 1187 (Fed. Cir. 1998) (quoting *Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1560, 1571 (Fed. Cir. 1988)); accord *Phillips*, 415 F.3d at 1323.

The prosecution history is another tool to supply the proper context for claim construction because a patent applicant may also define a term in prosecuting the patent. *Home Diagnostics, Inc. v. Lifescan, Inc.*, 381 F.3d 1352, 1356 (Fed. Cir. 2004) (“As in the case of the specification, a patent applicant may define a term in prosecuting a patent.”). “[T]he prosecution history (or file wrapper) limits the interpretation of claims so as to exclude any interpretation that may have been disclaimed or disavowed during prosecution in order to obtain claim allowance.” *Standard Oil Co. v. Am. Cyanamid Co.*, 774 F.2d 448, 452 (Fed. Cir. 1985).

Although extrinsic evidence can be useful, it is “less significant than the intrinsic record in determining the legally operative meaning of claim language.” *Phillips*, 415 F.3d at 1317 (citations and internal quotation marks omitted). Technical dictionaries and treatises may help a court understand the underlying technology and the manner in which one skilled in the art might use claim terms, but technical dictionaries and treatises may provide definitions that are too broad or may not be indicative of how the term is used in the patent. *Id.* at 1318. Similarly, expert testimony may aid a court in understanding the underlying technology and determining the particular meaning of a term in the pertinent field, but an expert’s conclusory, unsupported assertions as to a term’s definition are entirely unhelpful to a court. *Id.* Generally, extrinsic evidence is “less reliable than the patent and its prosecution history in determining how to read claim terms.” *Id.*

The Supreme Court of the United States has “read [35 U.S.C.] § 112, ¶ 2 to require that a patent’s claims, viewed in light of the specification and prosecution history, inform those skilled

in the art about the scope of the invention with reasonable certainty.” *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2129 (2014). “A determination of claim indefiniteness is a legal conclusion that is drawn from the court’s performance of its duty as the construer of patent claims.” *Datamize, LLC v. Plumtree Software, Inc.*, 417 F.3d 1342, 1347 (Fed. Cir. 2005) (citations and internal quotation marks omitted), *abrogated on other grounds by Nautilus*, 134 S. Ct. 2120.

In general, prior claim construction proceedings involving the same patents-in-suit are “entitled to reasoned deference under the broad principals of *stare decisis* and the goals articulated by the Supreme Court in *Markman*, even though *stare decisis* may not be applicable *per se*.” *Maurice Mitchell Innovations, LP v. Intel Corp.*, No. 2:04-CV-450, 2006 WL 1751779, at *4 (E.D. Tex. June 21, 2006) (Davis, J.); *see TQP Development, LLC v. Intuit Inc.*, No. 2:12-CV-180, 2014 WL 2810016, at *6 (E.D. Tex. June 20, 2014) (Bryson, J., sitting by designation) (“[P]revious claim constructions in cases involving the same patent are entitled to substantial weight, and the Court has determined that it will not depart from those constructions absent a strong reason for doing so.”); *see also Teva*, 135 S. Ct. at 839–40 (“prior cases will sometimes be binding because of issue preclusion and sometimes will serve as persuasive authority”) (citation omitted); *Finisar Corp. v. DirecTV Grp., Inc.*, 523 F.3d 1323, 1329 (Fed. Cir. 2008) (noting “the importance of uniformity in the treatment of a given patent”) (quoting *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 390 (1996)).

III. THE PARTIES’ STIPULATED TERMS

In their December 29, 2017 Joint 4-3 Claim Construction and Prehearing Statement, the parties submitted that “[t]he parties have met and conferred regarding their proposed terms and constructions, but have not agreed on constructions or partial constructions at this time.” Dkt.

No. 103 at 2. In their March 9, 2018 Joint Claim Construction Chart Pursuant to P.R. 4-5(d), the parties agreed that “USB enumeration” has its “[p]lain meaning in light of the Court’s construction of ‘USB.’” Dkt. No. 135, Ex. A1 at 2. Additional agreements are set forth in the discussion of particular terms herein.

IV. CONSTRUCTION OF DISPUTED TERMS IN THE FISCHER PATENTS²

Defendants have presented “USB” as a distinct term. *See* Dkt. No. 127 at 1–5. Plaintiff’s opening brief addresses terms that include “USB,” but Plaintiff has not separately addressed “USB” as a distinct term. *See* Dkt. No. 123. Because Plaintiff has grouped its arguments as to “USB” terms (*see id.* at 3–13), because *Samsung* construed “USB” as a distinct term (*see Samsung* at 11–20 & 22), and because the parties here have agreed to the *Samsung* construction for “USB” as noted below, the Court begins by addressing the term “USB.”³

² In its opening claim construction brief, Plaintiff submits: “For the terms USB port, USB interface, and USB cable, Fundamental has adopted the Court’s construction from the *Samsung* case that these terms be given the [*sic*, their] plain meaning. Because Defendants have asserted that these terms need not be construed (Dkt. 103-5 at 19–20, 22), Fundamental is not addressing them further in this brief.” Dkt. No. 123 at 4 n.4. In the parties’ March 9, 2018 Joint Claim Construction Chart Pursuant to P.R. 4-5(d), the parties submitted agreement as to “USB cable,” “Universal Serial Bus interface,” and “USB interface”: “Plain meaning in light of the Court’s construction of ‘USB.’” Dkt. No. 135, Ex. A1 at 2. As to “USB port” in Claims 1 and 18 of the ’111 Patent, Defendants stated in the Joint Claim Construction Chart: “Limiting as part of preamble.” Dkt. No. 135, Ex. A1 at 2. Defendants also stated this position at the March 26, 2018 hearing, although no such argument appears in Defendants’ response brief. *See* Dkt. No. 127 at 9. Instead, Defendants asserted in their brief merely that “to the extent that FISI attempts to backtrack and argues to limit the construction to the[] purported plain meaning without reference to ‘USB,’ that is improper and contrary to the Court’s [*Samsung*] ruling, and thus should be rejected.” *Id.* In short, Defendants have not adequately supported any assertion that the term “USB port” is limiting in the preambles of Claims 1 and 18 of the ’111 Patent. The Court therefore hereby expressly rejects Defendants’ assertion in that regard.

³ Defendants’ response brief also includes a global assertion that “[c]ollateral estoppel prevents FISI from rearguing positions that were rejected [in *Samsung*], and the Court should maintain those constructions here.” Dkt. No. 127 at 1. Defendants’ brief does not set forth any argument to support this assertion. *See* Dkt. No. 127. Defendants have not demonstrated that any estoppel applies.

A. “USB”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
“USB should only be construed as part of the term in which it appears; a Universal Serial Bus is a type of serial bus. A serial bus is a communication channel across which data, if transmitted, is transmitted one bit at a time.”	“USB is an abbreviation for ‘Universal Serial Bus,’ which is a computer standard technology described in Universal Serial Bus Specification Revision 2.0 and other versions of this standard promulgated at the time of the claimed invention.”

Dkt. No. 103, Ex. A1 at 82; *id.*, Ex. B1 at 1. The parties submit that this term appears in Claims 1–3, 6–8, 12, and 14–18 of the ’111 Patent, Claims 8, 9, 11, and 12 of the ’586 Patent, Claims 1–7, 9–15, 17–20, and 24 of the ’766 Patent, and Claims 1, 3–5, 10, and 12–14 of the ’550 Patent. Dkt. No. 103, Ex. B1 at 1; *see id.*, Ex. A1 at 82 (“passim”); Dkt. No. 135, Ex. A1 at 1.

In *Samsung*, the Court construed this term to mean “Universal Serial Bus as described in Universal Serial Bus Specification Revision 2.0 and related versions of this standard at the time of the claimed invention.” *Samsung* at 22.

In the parties’ March 9, 2018 Joint Claim Construction Chart, the parties submit that they have agreed to the *Samsung* construction. Dkt. No. 135, Ex. A1 at 1. Shortly before the start of the March 26, 2018 hearing, the Court provided the parties with a preliminary construction identical to the *Samsung* construction. At the hearing, no party objected to this construction.

The Court therefore hereby construes **“USB”** to mean **“Universal Serial Bus as described in Universal Serial Bus Specification Revision 2.0 and related versions of this standard at the time of the claimed invention.”**

B. “USB adapter” and “Universal Serial Bus (‘USB’) adapter”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
Not limiting; alternatively, “power supply configured to supply power from a power source to a USB device” ⁴	Limiting as part of preamble. No construction necessary outside of “USB” Alternatively: “adapter specified in USB[] specification”

Dkt. No. 103, Ex. B1 at 15 & 17; Dkt. No. 123 at 4; Dkt. No. 127 at 9; Dkt. No. 135, Ex. A1 at 3.

The parties submit that this term appears in Claims 1, 17, and 18 of the ’111 Patent and dependent claims. Dkt. No. 135, Ex. A1 at 3; *see* Dkt. No. 103, Ex. A1 at 27 & 36; *id.*, Ex. B1 at 17 (“’111: 1, 2, 3, 6, 7, 8, 12, 14, 15, 16, 17, 18”); Dkt. No. 127 at 9 (“’111: all claims”).

In *Samsung*, the Court found that “Universal Serial Bus (‘USB’) adapter,” which appears only in the preambles of Claims 1 and 18 of the ’111 Patent, was not limiting. *See Samsung* at 23–26. As to the term “USB adapter” in Claim 17 of the ’111 Patent, *Samsung* construed this term to mean “power supply configured to supply power from a power source to a USB device.” *Samsung* at 26.

Shortly before the start of the March 26, 2018 hearing, the Court provided the parties with the following preliminary constructions: “Universal Serial Bus (‘USB’) adapter” (’111 Pat., Cls. 1, 18): “Not limiting”; “USB adapter” (’111 Pat., Cl. 17): “power supply configured to supply power from a power source to a USB device.”

(1) The Parties’ Positions

Plaintiff argues that this term is not limiting where it appears in only the preamble of a claim. Dkt. No. 123 at 4. Alternatively, Plaintiff proposes the *Samsung* construction. *Id.* at 5.

⁴ Plaintiff previously proposed: “power adapter with a USB connector.” Dkt. No. 103, Ex. A1 at 27 & 36.

Defendants respond that this term is limiting because it recites essential structure and is described in the specification as being the invention. Dkt. No. 127 at 9. As to the meaning of the term, Defendants argue that “the departures from the USB standard are reflected in other claim limitations, and the patentee never acted as a lexicographer to redefine the term ‘USB adapter’ itself.” *Id.* at 10.

Plaintiff replies that “Defendants do not identify any ‘essential structure’ signified by the term that is not set forth in the body of the claims.” Dkt. No. 130 at 2. Alternatively, Plaintiff proposes the *Samsung* construction. *Id.*

At the March 26, 2018 hearing, the parties presented oral arguments as to this term.

(2) Analysis

As to Claims 1 and 18 of the ’111 Patent, the term “Universal Serial Bus (‘USB’) adapter” appears only in the preambles, and *Samsung* found that this term is merely descriptive of the limitations expressly recited in the body of each claim. *Samsung* at 25. Defendants’ argument that “[w]ithout these components being part of a USB adapter, they would essentially be a meaningless group of circuits scattered on a table” (Dkt. No. 127 at 10) is unpersuasive.

Claim 1 of the ’550 Patent recites an “adapter” rather than a “USB adapter,” and Defendants cite this distinction as demonstrating that “[w]hen the patentee did not want to use a standard ‘USB adapter’ as described in USB 2.0, it claimed an ‘adapter’ with only certain USB features” (*id.*), but Defendants have not shown how this use of a different term in a claim of a different (albeit related) patent is necessarily relevant. In sum, Defendants have not justified departing from the *Samsung* analysis.

As to Claim 17 of the ’111 Patent, the term “USB adapter” appears only in the preamble but is recited in relation to, for example, a “USB connector” that provides antecedent basis for

limitations set forth in the body of the claim, as discussed in *Samsung*. See *Samsung* at 24–25.

This term in Claim 17 of the ’111 Patent is therefore limiting.

As to the proper construction of this term in this claim, *Samsung* found that construing “USB adapter” to mean an “adapter specified in USB” (as Defendants have essentially proposed in the present case as well) would be inconsistent with the context in which the term “USB adapter” is used in the claim and in the specification. See *id.* at 25–26. For example, the specification discloses that power can be drawn from the USB adapter “without regard to the USB specification”:

The USB adapter 100 contributes to a system wherein a device 10 that follows the USB specification when coupled to a typical USB host via its USB port can be informed that the USB adapter 100 has been coupled to the device 10 and that the device 10 can now draw power *without regard to the USB specification and the USB specification imposed limits*.

’111 Patent at 8:17–22 (emphasis added); see *id.* at 8:23–42; see also Dkt. No. 127, Ex. 11-1, Universal Serial Bus Specification Revision 2.0 at § 7.2.1.2.1 (“Over-current Protection”).⁵

Defendants have not justified departing from the *Samsung* construction; the recited adapter is a “USB” adapter not in terms of any definition set forth in a USB specification but rather because, for example, power is provided through a USB connector. See ’111 Patent at Cl. 17.

The Court therefore hereby construes these disputed terms as set forth in the following chart:

⁵ *Samsung* also noted how the term is used in claims of related United States Patent No. 6,936,936 (“the ’936 Patent”). See *Samsung* at 26. The ’111 Patent resulted from a continuation of the ’936 Patent.

<u>Term</u>	<u>Construction</u>
“Universal Serial Bus (‘USB’) adapter” (’111 Patent, Claims 1, 18)	Not limiting
“USB adapter” (’111 Patent, Claim 17)	“power supply configured to supply power from a power source to a USB device”

C. “USB controller”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
“a controller operable to communicate an identification signal” ⁶	Defendants adopt the Court’s construction from the <i>Samsung</i> litigation. 2:17-cv-00145 (D.I. 140). No construction necessary outside of “USB” ⁷

Dkt. No. 123 at 6; Dkt. No. 135, Ex. A1 at 1. Defendants submit that this term appears in Claim 8 of the ’111 Patent. Dkt. No. 103, Ex. B1 at 18; Dkt. No. 135, Ex. A1 at 1.

In *Samsung*, the Court construed this term to have its plain meaning apart from the Court’s construction of “USB.” *Samsung* at 31.

Shortly before the start of the March 26, 2018 hearing, the Court provided the parties with the following preliminary construction: “Plain meaning apart from the Court’s construction of ‘USB.’”

(1) The Parties’ Positions

Plaintiff argues that “the USB controller is unique to the Fischer Patents and is not specified in the USB specifications.” Dkt. No. 123 at 6.

⁶ Plaintiff previously proposed: “an apparatus responsible for controlling communications across USB data lines or power delivery across USB power lines.” Dkt. No. 103, Ex. A1 at 80.

⁷ Defendants previously alternatively proposed: “controller specified in USB.” Dkt. No. 103, Ex. B1 at 18.

Defendants respond that Plaintiff's proposal is an attempt to "completely read out the term 'USB.'" Dkt. No. 127 at 9.

Plaintiff replies by reiterating that "[j]ust as the claimed USB adapters provide functionality that differs from a USB 2.0 hub or host (or other USB device), the USB controller within the claimed adapter is distinct from the hub and host controllers specified in USB 2.0." Dkt. No. 130 at 3. Plaintiff further submits that "[t]he hub and host controllers in USB 2.0, by contrast, cannot generate an identification signal and cannot enable drawing power without regard to USB 2.0 limits; rather, those controllers manage the same enumeration process that is not required of the claimed USB controller." *Id.*

At the March 26, 2018 hearing, the parties presented oral arguments as to this term. In particular, Plaintiff alternatively proposed that "USB controller" could be construed to mean "a controller operable to communicate an identification signal *to a USB device*."

(2) Analysis

Samsung addressed substantially the same arguments that Plaintiff has presented here. *See, e.g.*, Dkt. No. 123, Ex. 10, Feb. 7, 2018 Fernald Decl. at ¶ 24 ("Because the claimed USB adapter is not described anywhere in USB 2.0, and is capable of providing power without regard to power limits imposed by the USB specification, a POSITA [(person of ordinary skill in the art)] would have understood that the claimed USB controller also need not comply with the USB specification."). For example, Plaintiff urged at the March 26, 2018 hearing that the "USB controller" is not like the "hub controller" or "host controller" set forth in the USB 2.0 specification because the "USB controller" need not have the functionality of such a "hub controller" or "host controller." Plaintiff's argument merely presents its proposed conclusion in the guise of a supporting rationale. In other words, Plaintiff merely restates the premise that is in

dispute, namely as to whether the term “USB” limits the nature of the “controller” to being in accordance with the USB 2.0 specification.

The Court reaches the same conclusion here as in *Samsung* for the same reasons set forth in *Samsung*. See *Samsung* at 31 (“the written description is consistent with understanding the recited ‘USB controller’ as a controller that accords with the USB standard but that is utilized in a purportedly inventive manner”). Unlike for the term “USB adapter,” “controller” is a term that is used in the USB 2.0 specification, and Plaintiff has not demonstrated that the patentee used the term “USB controller” in a manner contrary to the USB 2.0 specification.

The Court therefore hereby construes “**USB controller**” to have its **plain meaning** apart from the Court’s construction of “USB.”

D. “USB connector”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
“a component for electrically coupling to a USB device, hub, host or adapter” ⁸	Defendants adopt the Court’s construction from the <i>Samsung</i> litigation. 2:17-cv-00145 (D.I. 140). No construction necessary outside of “USB” ⁹

Dkt. No. 123 at 7; Dkt. No. 127 at 5; Dkt. No. 135, Ex. A1 at 1. The parties submit that this term appears in Claims 1–17 of the ’111 Patent and Claims 9 and 12 of the ’586 Patent. Dkt. No. 103, Ex. A1 at 1 & 36; *see id.*, Ex. B1 at 16 (“’111: 1–3, 6–8, 12, 14, 16–17”; “’586: 9 and 12”); *see also* Dkt. No. 127 at 5 (“’111: 1, 6, 7, 8, 12, 14, 17; ’586: 9, 12”).

⁸ Plaintiff previously proposed: “a component that includes pins for Vbus and Gnd power, and D+ and D- communications and that connects to a USB device, hub, host or adapter.” Dkt. No. 103, Ex. A1 at 1 & 36.

⁹ Defendants previously alternatively proposed: “connector specified in USB.” Dkt. No. 103, Ex. B1 at 16.

In *Samsung*, the Court construed this term to have its plain meaning in light of the Court's construction of "USB." *Samsung* at 22.

Shortly before the start of the March 26, 2018 hearing, the Court provided the parties with the following preliminary construction: "Plain meaning apart from the Court's construction of 'USB.'"

At the March 26, 2018 hearing, the parties presented oral arguments as to this term.

(1) The Parties' Positions

Plaintiff argues: "As with USB controller, USB 2.0 does not describe a USB connector for use with a USB adapter. The reason is obvious – there is no USB adapter described in the USB 2.0 specification." Dkt. No. 123 at 7. Plaintiff also submits that "USB specifications expressly allow a device to have a nonstandard USB connector." *Id.* at 9.

Defendants respond that "[t]he claims use the term 'USB connector' in its ordinary sense with no special meaning suggested." Dkt. No. 127 at 5. Defendants urge that Plaintiff's proposals should be rejected because "[t]he word 'connector' itself, and the context in which it is used in the claims, connotes physical (not just electrical) connectivity." *Id.* at 6. Defendants also argue that Plaintiff's reliance upon so-called "captive cable assemblies" and "vendor-specific" connectors is unavailing because "[t]he USB standard nowhere defines 'USB connector' to encompass these vendor-specific (*i.e.*, non-USB) connectors." *Id.* at 8.

Plaintiff replies that "[a]lthough USB 2.0 specifies connectors for devices, hosts, and hubs, it does not specify a connector for a USB adapter (because it does not specify a USB adapter)." Dkt. No. 130 at 3. Plaintiff urges that no specific form factor is required and that "[a]ny component that can electrically couple the USB adapter to the Vbus, Gnd, D+, and D-

pins of a USB device (for supplying power and transmitting an identification signal) is sufficient.” *Id.* at 4.

(2) Analysis

Samsung addressed substantially the same arguments that Plaintiff has presented here. *See* Dkt. No. 123 at 8 (“The intrinsic record, however, references no physical requirements for the USB connector other than the need for Vbus, Gnd, D+ and D- pins to enable power and identification signals to be carried.”); *see also id.* at 9–10 (“compatibility of the USB interface is not about form factor, it is about common communication protocols”).

The Court accordingly reaches the same conclusions here as in *Samsung* for the same reasons set forth in *Samsung*. *See Samsung* at 20–22 (“the written description uses this term to refer to a physical connector”); *see also id.* at 14–20 (discussing case law); ’111 Patent at 6:15–17 (“Coupled to the USB port 18 is a USB connector 54. The USB connector 54 is the physical component that couples the USB port to the outside world.”). For example, Plaintiff has not demonstrated that an interpretation of “USB adapter” that is not defined by USB specifications necessarily imparts a broader meaning to the “USB connector.” As another example, although a cable might at one end have a connector defined in the USB 2.0 standard and at the other end have a “vendor-specific” connector, Plaintiff has not shown that such “vendor-specific” connectors would necessarily then be referred to as “USB” connectors. *See Samsung* at 21.

The Court therefore hereby construes “**USB connector**” to have its **plain meaning** apart from the Court’s construction of “USB.”

E. “USB communication path”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
Not limiting as part of preamble “path over which signals across USB data pins can be received or transmitted”	USB communication path is limiting. ¹⁰ Defendants adopt the Court’s construction from the <i>Samsung</i> litigation. 2:17-cv-00145 (D.I. 140). No construction necessary outside of “USB” ¹¹

Dkt. No. 103, Ex. A1 at 48 & 59–60; *id.*, Ex. B1 at 15; Dkt. No. 123 at 10; Dkt. No. 135, Ex. A1 at 1–2. The parties submit that this term appears in Claims 1, 4, 9, 12, 17, 19, 20, and 24 of the ’766 Patent and Claims 1, 4, 5, 10, 13, and 14 of the ’550 Patent. Dkt. No. 103, Ex. B1 at 6; *see* Dkt. No. 135, Ex. A1 at 1–2; *see also* Dkt. No. 103, Ex. A1 at 48 (“’766 all claims; [’]550 all claims”) & 59–60 (“’766, claim 17”).

In *Samsung*, the Court construed this term to have its plain meaning apart from the Court’s construction of “USB.” *Samsung* at 31.

Shortly before the start of the March 26, 2018 hearing, the Court provided the parties with the following preliminary construction: “Plain meaning apart from the Court’s construction of ‘USB.’”

¹⁰ Defendants have asserted: “‘USB communication path’ as recited in claim 17 of the ’766 patent is limited [*sic*, limiting] because it provides an antecedent basis for the term ‘the path’.” Dkt. No. 127 at 8 n.5. Plaintiff’s briefing does not address this issue. *See* Dkt. No. 123 at 10; *see also* Dkt. No. 130 at 3. To whatever extent Plaintiff is maintaining that the term “USB communication path” is not a limitation in Claim 17 of the ’766 Patent, the Court hereby expressly rejects Plaintiff’s position as unsupported.

¹¹ Defendants previously alternatively proposed: “communication path specified in USB.” Dkt. No. 103, Ex. B1 at 6.

(1) The Parties' Positions

Plaintiff argues that this term is not limited by the USB specification because “[w]hen on the adapter side, the USB communication path need not participate in enumeration, need not perform any normal USB communication and may transmit only abnormal USB data conditions.” Dkt. No. 123 at 10.

Defendants respond that Plaintiff’s proposal is an attempt to “completely read out the term ‘USB.’” Dkt. No. 127 at 9.

Plaintiff replies that “the adapter-side USB communication path merely provides a path for transmitting or receiving signals (such as an abnormal USB data condition) across USB data pins. The USB communication path in the adapter need not provide a path for normal USB communications or enumeration, and thus deviates from the communication path specified in USB 2.0.” Dkt. No. 130 at 3.

At the March 26, 2018 hearing, the parties presented oral arguments as to this term.

(2) Analysis

Samsung addressed substantially the same arguments that Plaintiff has presented here. *See, e.g.*, Dkt. No. 123, Ex. 10, Feb. 7, 2018 Fernald Decl. at ¶ 24 (“[T]he specification teaches . . . that a USB adapter may be one incapable of undergoing enumeration, and hence a POSITA would have understood that the claimed USB communication path need not be required to have the full data exchange capacity as specified generally in a USB specification.”).

The Court reaches the same conclusion here as in *Samsung* for the same reasons set forth in *Samsung*. *See Samsung* at 30–31 (“[A]ny question as to whether an instrumentality accused of being a claimed ‘adapter’ has a ‘USB communication path’ is a question of fact for the finder of fact to evaluate in light of the relevant USB standards.”); *see also* Dkt. No. 127, Ex. 5, U.S.

Provisional Application No. 60/273,021 at 7 (FISI00019360) (“The traditional communications mode of operation of a USB peripheral is described in great detail in the current USB standard and is not discussed presently as it is obvious to a person skilled in the art.”). Plaintiff has not demonstrated that an interpretation of “USB adapter” that is not defined by USB specifications necessarily imparts a broader meaning to the “USB communication path.” Unlike for the term “USB adapter,” Plaintiff has not demonstrated that the patentee used the term “USB communication path” in a manner contrary to the USB 2.0 specification.

The Court therefore hereby construes **“USB communication path”** to have its **plain meaning** apart from the Court’s construction of “USB.”

F. “abnormal USB data condition” and “abnormal USB data line condition”

<p>“abnormal USB data condition [detected at said USB communication path]” (’766 Patent, Cls. 1–23)</p> <p>“abnormal data condition on said USB communication path” (’550 Patent, Cls. 4, 13, and dependent claims)</p>	
Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
<p>“condition on the USB communication path that is not defined as a valid USB data condition”¹²</p>	<p>“abnormal data condition” and “abnormal USB data condition”: “an invalid or illegal data condition specified in USB”</p> <p>“abnormal data condition on said USB communication path”: “an invalid or illegal data condition on said USB communication path specified in USB”</p>

¹² Plaintiff previously proposed: “condition detected at the USB communication path that is not defined as a valid (or legal) data condition by the USB specification.” Dkt. No. 103, Ex. A1 at 71 & 74.

<p align="center">“abnormal USB data line condition on said D+ line and said D- line” (’766 Patent, Cls. 5, 13)</p> <p align="center">“abnormal data line condition on said D+ line and said D- line” (’550 Patent, Cls. 6, 15)¹³</p>	
Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
“condition on the D+ line and D-line that is not defined as a valid USB data condition” ¹⁴	<p>“abnormal data line condition” and “abnormal USB data line condition”: “an invalid or illegal data line condition specified in USB”</p> <p>“abnormal data line condition on said D+ line and said D- line”: “an invalid or illegal data line condition on said D+ line and D- line specified in USB”</p>

Dkt. No. 102, Ex. A1 at 71 & 74; *id.*, Ex. B1 at 8–9; Dkt. No. 123 at 10; Dkt. No. 135, Ex. A1 at 4.

In *Samsung*, the Court construed “abnormal USB data condition [detected at said USB communication path]” and “abnormal data condition on said USB communication path” to mean “condition on the USB communication path that is not defined as a valid USB data condition” (in light of the Court’s construction of “USB”). *Samsung* at 33.

¹³ In the parties’ December 29, 2017 Joint 4-3 Claim Construction and Prehearing Statement, Plaintiff also presented “abnormal signal [on the USB communication path]” as a disputed term in Claim 19 of the ’766 Patent. Dkt. No. 103, Ex. A1 at 74 (square brackets Plaintiff’s). Defendants similarly presented the term “abnormal signal.” *Id.*, Ex. B1 at 8. Because the term “abnormal signal” is not addressed in the parties’ briefing, the Court does not herein construe that term. *See* Dkt. Nos. 123, 127 & 130.

¹⁴ Plaintiff previously proposed: “condition detected at the D+ line and D-line that is not defined as a valid (or legal) data condition by the USB specification.” Dkt. No. 103, Ex. A1 at 74–75.

Shortly before the start of the March 26, 2018 hearing, the Court provided the parties with the following preliminary construction for each the two above-charted groups of disputed terms, respectively: “condition on the USB communication path that is not defined as a valid USB data condition”; and “condition on the D+ line and D- line that is not defined as a valid USB data condition.”

(1) The Parties’ Positions

Plaintiff argues that “[b]ecause the signal distinguishes a normal USB hub/host from an alternate power source, the signal need not be defined as illegal or invalid by USB 2.0, it only needs to be one that it [*sic*, is] not expected from a USB hub/host, *i.e.*, that the USB specification does not define as valid or legal.” Dkt. No. 123 at 11.

Defendants respond that their proposal “is consistent with the claim language, which, for example, recites an affirmative limitation that the data line condition be an ‘abnormal USB data line condition.’” Dkt. No. 127 at 11–12. Defendants also cite prosecution history in which “the patentees amended their claims to add the ‘abnormal’ limitation instead of ‘identification signal,’ arguing that the new claims were different from the related patents.” *Id.* at 12.

Plaintiff replies that “Defendants’ proposed construction improperly limits the claims to an exemplary embodiment.” Dkt. No. 130 at 5. Plaintiff also argues that “Defendants’ prosecution history argument similarly fails because the patentees did not rely on the ‘abnormal’ limitation to overcome a rejection.” *Id.*

At the March 26, 2018 hearing, the parties did not present any oral argument as to these terms.

(2) Analysis

Samsung addressed substantially the same arguments that Defendants have presented here. *See, e.g.*, Dkt. No. 127 at 12 (arguing that “[b]ecause the ‘abnormal’ signaling is the essence of the invention,” it should be limited to the “objective boundar[ies]” set forth in the written description and in the USB 2.0 specification). The Court reaches the same conclusion here as in *Samsung* for the same reasons set forth in *Samsung*. *See Samsung* at 33.

The authorities cited by Defendants do not compel otherwise. *See* Dkt. No. 127 at 12 (citing *Edwards Lifesciences LLC v. Cook Inc.*, 582 F.3d 1322, 1329–30 (Fed. Cir. 2009); *SafeTCare Mfg., Inc. v. Tele-Made, Inc.*, 497 F.3d 1262, 1269–70 (Fed. Cir. 2007) (“The inventor makes clear that this attribute of the invention is important in distinguishing the invention over the prior art.”); *Honeywell Int’l, Inc. v. ITT Indus., Inc.*, 452 F.3d 1312, 1318 (Fed. Cir. 2006)).

Further, the ’766 Patent prosecution history cited by Defendants did not involve merely replacing “identification signal” with an “abnormal” condition, as Defendants appear to imply. *See* Dkt. No. 127 at 12; *see also id.*, Ex. 21, Feb. 13, 2012 Amendment at 6 (replacing all but four words of application claim 1); *id.*, Ex. 18, Mar. 28, 2012 Notice of Allowance, Reasons for Allowance at 2. The prosecution history thus does not set forth any disclaimer or otherwise provide any context that would warrant imposing the narrow interpretation proposed here by Defendants. *See Omega Eng’g, Inc. v. Raytek Corp.*, 334 F.3d 1314, 1324 (Fed. Cir. 2003) (“As a basic principle of claim interpretation, prosecution disclaimer promotes the public notice function of the intrinsic evidence and protects the public’s reliance on *definitive* statements made during prosecution.”) (emphasis added).

Finally, to whatever extent Defendants are maintaining that the *Samsung* construction renders the claims indefinite, Defendants have not met their burden of demonstrating indefiniteness. *See, e.g., Sonix Tech. Co. v. Publ'ns Int'l, Ltd.*, 844 F.3d 1370, 1377 (Fed. Cir. 2017) (“Indefiniteness must be proven by clear and convincing evidence.”) (citation omitted).

The Court therefore hereby construes these disputed terms as set forth in the following chart:

<u>Term</u>	<u>Construction</u>
“abnormal USB data condition [detected at said USB communication path]” “abnormal data condition on said USB communication path”	“condition on the USB communication path that is not defined as a valid USB data condition”
“abnormal USB data line condition on said D+ line and said D- line” “abnormal data line condition on said D+ line and said D- line”	“condition on the D+ line and D- line that is not defined as a valid USB data condition”

G. “USB specification”

<p>“[configured to supply current on the VBUS line without regard to] at least one associated condition specified in a USB specification”¹⁵ (’550 Patent, Cl. 1 and dependent claims)</p> <p>“[configured to supply current on the VBUS line without regard to] at least one USB Specification imposed limit”¹⁶ (’550 Patent, Cl. 10 and dependent claims)</p> <p>“[a charging subsystem enabled to draw current/power unrestricted by] at least one predetermined USB Specification limit”¹⁷ (’766 Patent, Cls. 1 and 9 and dependent claims)</p> <p>“[drawing current in excess of] at least one USB Specification defined limit”¹⁸ (’766 Patent, Cl. 17 and dependent claims)</p>	
Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
<p>FISI adopts the Court’s construction from the <i>Samsung</i> litigation. 2:17-cv-00145 (D.I. 140).</p> <p>Plain and ordinary meaning; no construction necessary</p>	<p>Indefinite</p>

¹⁵ Plaintiff previously proposed that “at least one associated condition specified in a USB specification” be construed to mean: “at least one condition associated with supplying current in a Universal Serial Bus specification; the remaining term requires no additional construction at this time (*i.e.*, plain and ordinary meaning in light of the intrinsic evidence).” Dkt. No. 103, Ex. A1 at 37.

¹⁶ Plaintiff previously proposed that “at least one USB Specification imposed limit” be construed to mean: “at least one Universal Serial Bus 2.0 Specification current supply limit; the remaining term requires no additional construction at this time (*i.e.*, plain and ordinary meaning in light of the intrinsic evidence).” Dkt. No. 103, Ex. A1 at 46.

¹⁷ Plaintiff previously proposed that “at least one predetermined USB Specification limit” be construed to mean: “At least one limit related to current/power draw defined by the Universal Serial Bus 2.0 Specification that is determined beforehand.” Dkt. No. 103, Ex. A1 at 47.

¹⁸ Plaintiff previously proposed that “at least one USB Specification defined limit” be construed to mean: “At least one limit related to current draw defined by Universal Serial Bus 2.0 Specification.” Dkt. No. 103, Ex. A1 at 47.

Dkt. No. 103, Ex. A1 at 37 & 46–47; *id.*, Ex. B1 at 10–12 & 23–25; Dkt. No. 123 at 11; Dkt. No. 135, Ex. A1 at 3.

In *Samsung*, the Court rejected an indefiniteness challenge as to these terms and construed them to have their plain meaning. *Samsung* at 38.

Shortly before the start of the March 26, 2018 hearing, the Court provided the parties with the following preliminary construction: “Plain meaning (Not indefinite).”

(1) The Parties’ Positions

Plaintiff submits that “the patent makes clear that the relevant limits are what is allotted to a specific device as power flows to it” Dkt. No. 123 at 11 (citing ’111 Patent at 8:11–16).

Defendants respond that “these terms are defined by disregarding ‘at least one’ USB 2.0 current limit,” “[b]ut the USB 2.0 standard itself already requires that, so the terms make no sense.” Dkt. No. 127 at 11.

Plaintiff replies that “[i]t would be clear to a POSA [(person of ordinary skill in the art)] that the corresponding claim limitations permit disregarding or violating the applicable limit governing the amount of current or power a USB device may draw in a particular condition or state.” Dkt. No. 130 at 4. Plaintiff submits that Defendants’ argument should be rejected because “[a] limit cannot be ‘disregarded’ when it is not applicable” *Id.* at 4–5. Finally, Plaintiff argues:

The fact that subsequent revisions of the USB specification may exceed USB 2.0 power limits does not establish indefiniteness—it merely demonstrates that others recognized the benefits of the claimed invention and incorporated it into the specification. If a device may draw power without regard to USB 2.0 limits, this limitation is met—even if the device implements a subsequent revision of the specification that permits higher power draw.

Id. at 5.

At the March 26, 2018 hearing, the parties did not present any oral argument as to these terms.

(2) Analysis

Samsung addressed substantially the same arguments that Defendants have presented here. *See Samsung* at 36–38. The Court reaches the same conclusions here as in *Samsung* for substantially the same reasons set forth in *Samsung*. *See id.*

The Court therefore hereby expressly rejects Defendants’ indefiniteness arguments and hereby construes these terms to have their **plain meaning**.

H. “without USB enumeration”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
Plain and ordinary meaning; no construction necessary ¹⁹	“without the occurrence of any of the steps of USB enumeration”

Dkt. No. 103, Ex. B1 at 7 & 21; Dkt. No. 123 at 12; Dkt. No. 135, Ex. A1 at 5. The parties submit that this term appears in Claims 3, 11, and 24 of the ’766 Patent and Claims 3 and 12 of the ’550 Patent. Dkt. No. 103, Ex. A1 at 76; *id.*, Ex. B1 at 7; Dkt. No. 135, Ex. A1 at 5.

This term was not presented as a disputed term in *Samsung*.

Shortly before the start of the March 26, 2018 hearing, the Court provided the parties with the following preliminary construction: “without the occurrence of all of the steps of USB enumeration.”

¹⁹ Plaintiff previously proposed as follows regarding “[said enabling of the charging subsystem occurs without] USB enumeration” and “[said current is supplied without] USB enumeration”:

USB enumeration: identification and assignment of unique addresses to attached USB devices. The remaining term requires no construction at this time (*i.e.*, plain and ordinary meaning in light of the intrinsic evidence).

Dkt. No. 103, Ex. A1 at 76 (square brackets Plaintiff’s).

(1) The Parties' Positions

Plaintiff argues that “[a] POSA would have understood that ‘without USB enumeration’ means that not *all* steps of enumeration are performed.” Dkt. No. 123 at 12 (emphasis added). Likewise, Plaintiff urges that “no embodiment in the patent requires the a [*sic*] device to draw power without *initiating* enumeration, as Defendants’ construction would require.” *Id.* at 13.

Defendants respond that “[t]he specification repeatedly states that the mobile device *foregoes* participation in the enumeration steps in their entirety after the detection of an identification signal.” Dkt. No. 127 at 14 (citing ’550 Patent at 2:8–15, 9:16–19, 9:44–46, 9:65–10:4 & Fig. 3). Defendants also argue that “FISI does not – because it cannot – point to any disclosure where the identification signal is sent/received after some enumeration steps.” Dkt. No. 127 at 14.

Plaintiff replies that “[t]he plain meaning of ‘without USB enumeration’ means that the *process* of USB enumeration is not performed,” and “[i]f any step of the enumeration process is not performed, then there has been no enumeration.” Dkt. No. 130 at 6. Plaintiff emphasizes that “Defendants cite no disclosure that prohibits the invention from performing *any* steps of enumeration.” *Id.*

At the March 26, 2018 hearing, the parties did not present any oral argument as to this term.

(2) Analysis

Claims 1 and 3 of the ’766 Patent, for example, recite (emphasis added):

1. A mobile device, comprising:
 - a USB communication path; and
 - a charging subsystem enabled to draw current unrestricted by at least one predetermined USB Specification limit, said enablement being responsive to an abnormal USB data condition detected at said USB communication path.

* * *

3. The device of claim 1, wherein said enabling of the charging subsystem occurs *without USB enumeration*.

The parties appear to agree that USB enumeration involves multiple steps. Defendants' proposal, that "without USB enumeration" should be construed as precluding the performance of *any* step that is involved in USB enumeration, is contrary to the open-ended structure of these claims. *See, e.g., Genentech, Inc. v. Chiron Corp.*, 112 F.3d 495, 501 (Fed. Cir. 1997) ("‘Comprising’ is a term of art used in claim language which means that the named elements are essential, but other elements may be added and still form a construct within the scope of the claim."). Indeed, it seems self-evident, or least reasonably plain, that performance of less than all of the steps of "USB enumeration" would not be "USB enumeration." A useful analogy in this regard is that if a method claim recited "USB enumeration" as a limitation, and an accused instrumentality performed less than all of the steps of "USB enumeration," then the accused instrumentality would not infringe.²⁰ *Cf. Ericsson, Inc. v. D-Link Sys., Inc.*, 773 F.3d 1201, 1219 (Fed. Cir. 2014) ("A method claim is directly infringed when someone practices every step of the patented method.").

Turning to the specification, the parties have cited disclosures regarding operations that can be carried out "without waiting for enumeration":

When a USB adapter 100 is connected to a mobile device 10, the identification subsystem 108 of the USB adapter 100 preferably provides an identification signal to the mobile device 10 to notify the mobile device 10 that the device 10 is connected to a power source that is not subject to the power limits imposed by the USB specification. Preferably, the mobile device 10 is programmed to recognize the identification signal and therefore recognizes that an identification signal has been transmitted by the USB adapter 100. After recognizing a valid identification

²⁰ For purposes of this analogy, the Court here uses the word "infringe" to refer to direct, literal infringement (rather than joint infringement or infringement under the doctrine of equivalents).

signal, the mobile device 10 draws power through the USB adapter 100 *without waiting for enumeration* or charge negotiation.

'111 Patent at 9:3–14 (emphasis added); *see id.* at 9:39–42. Defendants have also cited disclosures in the specification regarding power sources “that are not capable of participating in enumeration” as well as mobile devices that “can forego the enumeration process and charge negotiation process and immediately draw energy from the USB power adapter 100 at a desired rate.” *Id.* at 1:59–67 & 9:60–65.

On balance, Defendants have not identified any disclosure in the specification that rises to the level of a lexicography or disclaimer that would warrant precluding performing *any* step of USB enumeration. *See, e.g., GE Lighting Solutions, LLC v. AgiLight, Inc.*, 750 F.3d 1304, 1310 (Fed. Cir. 2014) (“This is simply not a case where the patentee has disavowed the plain meaning of the term”); *id.* at 1309–10 (collecting cases); *Openwave Sys., Inc. v. Apple Inc.*, 808 F.3d 509, 513 (Fed. Cir. 2015) (“To find disavowal of claim scope through disparagement of a particular feature, we ask whether the specification goes well beyond expressing the patentee’s preference . . . [such that] its repeated derogatory statements about [a particular embodiment] reasonably may be viewed as a disavowal.”) (citations and internal quotation marks omitted); *id.* at 517 (“There is no doubt a high bar to finding disavowal of claim scope through disparagement of the prior art in the specification.”).

The Court therefore hereby construes “**without USB enumeration**” to mean “**without the occurrence of all of the steps of USB enumeration.**”

I. “identification signal”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
FISI adopts the Court’s construction from the <i>Samsung</i> litigation. 2:17-cv-00145 (D.I. 140). “signal that identifies a power source type” ²¹	“signal that informs the mobile device that the USB adapter is not limited by the power limits imposed by the USB specification”

Dkt. No. 103, Ex. B1 at 3; Dkt. No. 123 at 13; Dkt. No. 135, Ex. A1 at 5. The parties submit that this term appears in Claims 1, 6, 17, and 18 of the ’111 Patent, Claims 8–13 of the ’586 Patent, and Claims 17 and 19 of the ’766 Patent. Dkt. No. 103, Ex. B1 at 3; *see* Dkt. No. 135, Ex. A1 at 5; *see also id.*, Ex. A1 at 85; Dkt. No. 127 at 13 (“’111, ’586: all claims; ’766: 17 and 19”).

In *Samsung*, the Court construed this term to mean “signal that identifies a power source type.” *Samsung* at 41.

Shortly before the start of the March 26, 2018 hearing, the Court provided the parties with the following preliminary construction: “signal that identifies a power source type.”

(1) The Parties’ Positions

Plaintiff argues that “Defendants’ construction focuses on a single intended use of the identification signal and renders other claim limitations redundant.” Dkt. No. 123 at 13.

Plaintiff also argues claim differentiation as to Claims 51, 55, and 70 of the parent ’936 Patent.²² *Id.* at 13–14.

²¹ Plaintiff previously proposed: “an electrical signal that provides information regarding an adapter power type or a power source type.” Dkt. No. 103, Ex. A1 at 85.

²² The ’111 Patent is a continuation of United States Patent No. 6,936,936 (“the ’936 Patent”).

Defendants respond that their proposed construction is “[t]he sole ‘identification’ contemplated in the specification for this signal” and is “the essence of the invention.” Dkt. No. 127 at 14.

Plaintiff replies that Defendants’ proposal improperly limits the term to a single function because “[t]he Fischer patents expressly contemplate that the identification signal may perform other functions, such as differentiating between types of power sources.” Dkt. No. 130 at 5–6. Further, Plaintiff urges that “Defendants’ argument that FISI’s construction would ‘capture USB enumeration’ (DBr. [(Dkt. No. 127) at] 14) fails because enumeration is a process that entails more than merely identifying a power source type.” Dkt. No. 130 at 6.

At the March 26, 2018 hearing, the parties presented oral arguments as to this term. In particular, Defendants urged that the “identification signal” must convey how much current is safe to draw. Defendants concluded that it is not enough to convey merely some information about a power source, such as whether it uses alternating current (AC) or direct current (DC).

(2) Analysis

Samsung addressed substantially the same arguments that Defendants have presented here. *See Samsung* at 39–41. The Court reaches the same conclusion here as in *Samsung* for the same reasons set forth in *Samsung*. *See id.* The absence of an assertion of the ’936 Patent in the present case, noted here by Defendants, does not significantly affect the applicability of the *Samsung* analysis in the present case.

The Court therefore hereby construes **“identification signal”** to mean **“signal that identifies a power source type.”**

J. “a mobile device”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
Not limiting ²³	The preambles are limiting.

Dkt. No. 103, Ex. B1 at 15; Dkt. No. 123 at 14; Dkt. No. 135, Ex. A1 at 7. Plaintiff submits that this term appears in Claims 1, 9, and 24 of the ’766 Patent and dependent claims. Dkt. No. 103, Ex. A1 at 82.

In *Samsung*, the Court found as to Claims 1, 9, and 24 of the ’766 Patent that the preamble term “a mobile device” is not limiting. *Samsung* at 42 & 44.

Shortly before the start of the March 26, 2018 hearing, the Court provided the parties with the following preliminary construction: “The preambles of Claims 1, 9, and 24 of the ’766 Patent are not limiting.”

(1) The Parties’ Positions

Plaintiff submits that the term “mobile device” provides no antecedent basis, was not relied upon during prosecution, and “does not affect the claim structure because the claim body provides a complete invention composed of at least a USB communication and a charging subsystem of prescribed features.” Dkt. No. 123 at 14.

Defendants’ response brief does not appear to address these terms. *See* Dkt. No. 127.

At the March 26, 2018 hearing, the parties did not present any oral argument as to this term.

²³ Plaintiff previously proposed: “Not a limit, but if deemed a limit, no additional construction at this time (*i.e.*, plain and ordinary meaning in light of the intrinsic evidence).” Dkt. No. 103, Ex. A1 at 82–83.

(2) Analysis

Particularly in light of the apparent absence of any argument by Defendants as to this term, the Court reaches the same conclusion here as in *Samsung* for the same reasons set forth in *Samsung*. See *Samsung* at 41–44; see also *Symantec Corp. v. Computer Assocs. Int’l, Inc.*, 522 F.3d 1279, 1288–89 (Fed. Cir. 2008) (discussing legal principles regarding preambles).

The Court therefore hereby finds that “**a mobile device**” in the preambles of Claims 1, 9, and 24 of the ’766 Patent is **not limiting**.

K. “microprocessor”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
No construction necessary. If construed, “IC with capability to interpret and execute coded instructions.”	“a CPU on a single chip”

Dkt. No. 103, Ex. A1 at 90; *id.*, Ex. B1 at 5; Dkt. No. 123 at 14; Dkt. No. 135, Ex. A1 at 5. The parties submit that this term appears in Claim 11 of the ’586 Patent. Dkt. No. 103, Ex. A1 at 90; *id.*, Ex. B1 at 5; Dkt. No. 127 at 13; Dkt. No. 135, Ex. A1 at 5.

In *Samsung*, the Court construed this term to mean “a CPU on a single chip.” *Samsung* at 47.

Shortly before the start of the March 26, 2018 hearing, the Court provided the parties with the following preliminary construction: “a CPU on a single chip.”

(1) The Parties’ Positions

Plaintiff argues that “Defendants seek to improperly limit the claims to preferred embodiments and fail to acknowledge that a microprocessor may be located on ICs that would not be considered a CPU but that can interpret and execute programmed/coded instructions.” Dkt. No. 123 at 14.

Defendants respond that they agree with the *Samsung* construction, which Defendants submit is consistent with the specification, extrinsic evidence, and case law. Dkt. No. 127 at 13.

At the March 26, 2018 hearing, the parties did not present any oral argument as to this term.

(2) Analysis

Samsung addressed substantially the same arguments that Plaintiff has presented here. *See Samsung* at 45–47. The Court reaches the same conclusion here as in *Samsung* for the same reasons set forth in *Samsung*. *See id.*

The Court therefore hereby construes **“microprocessor”** to mean **“a CPU on a single chip.”**

L. “generate” and “generating”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
Plain and ordinary meaning; no construction necessary.	“to produce” / “producing”

Dkt. No. 103, Ex. A1 at 106; *id.*, Ex. B1 at 4; Dkt. No. 123 at 15; Dkt. No. 135, Ex. A1 at 5. The parties submit that this term appears in Claims 1 and 17 of the ’111 Patent. Dkt. No. 103, Ex. A1 at 106; *id.*, Ex. B1 at 4; Dkt. No. 127 at 15; Dkt. No. 135, Ex. A1 at 5–6.

These terms were not presented as disputed terms in *Samsung*.

Shortly before the start of the March 26, 2018 hearing, the Court provided the parties with the following preliminary constructions: “provide” and “providing.”

(1) The Parties’ Positions

Plaintiff argues that “by Defendants’ own admission, the substitution of the claim terms with their alleged synonym alters the scope of the claims, which is improper.” Dkt. No. 123 at 15.

Defendants respond that “FISI argues for plain meaning to distort and broaden the term to read out the inherent requirement of this term.” Dkt. No. 127 at 15.

Plaintiff replies that whereas the term “generate” is unambiguous and easily understandable, Defendants’ proposal relies on a dictionary definition that has no connection to the intrinsic record. Dkt. No. 130 at 6 (citation omitted). Plaintiff also argues that “[e]ven if exemplary embodiments use an active mechanism for generating an identification signal, the claims cannot be so limited absent a clear disclaimer.” *Id.* at 6–7.

At the March 26, 2018 hearing, the parties presented oral arguments as to these terms. Plaintiff had no objection to the Court’s preliminary constructions of these terms as meaning “provide” and “providing.”

(2) Analysis

Claims 1 and 17 of the ’111 Patent recite that a power output is generated from received energy or received power (emphasis added):

1. A Universal Serial Bus (“USB”) adapter for providing power to a mobile device through a USB port, comprising:
 - a plug unit configured to receive energy from a power socket;
 - a power converter coupled to the plug unit, the power converter being configured to regulate the received energy from the power socket to *generate* a power output;
 - an identification subsystem configured to *generate* an identification signal, wherein the identification signal is configured to indicate to the mobile device that the power socket is not a USB host or hub; and
 - a USB connector coupled to the power converter and the identification subsystem, the USB connector being configured to couple the power output and the identification signal to the mobile device.

* * *

17. A method for providing energy to a mobile device using a USB adapter that includes a USB connector for coupling the USB adapter to the mobile device, comprising:
 - receiving a power input from a power socket;
 - generating* a regulated DC power output from the power input;

generating an identification signal that is configured to indicate to the mobile device that the power socket is not a USB host or hub;
providing the identification signal on one or more data pins of the USB connector; and
providing the power output on one or more power pins of the USB connector.

Although Claim 17 uses the term “providing” in addition to “generating,” the limitations are distinguishable from one another based on other language rather than any apparent difference in meaning between “generating” and “providing.” Instead, the specification uses the words “provides” and “generates” interchangeably:

The identification subsystem 108 *provides* an identification signal to the mobile device 10 that the power source is not a USB limited source. The identification signal could be the communication of a single voltage on one or more of the USB data lines, different voltages on the two data lines, a series of pulses or voltage level changes, or other types of electrical signals. The identification subsystem 108 *that generates* the identification signal could have multiple types of configurations. In one embodiment, the identification subsystem 108 comprises a hard-wired connection of a single voltage level to both data lines. In another embodiment, the identification subsystem 108 comprises a USB controller that is operable to communicate an identification signal to the mobile device. Additional embodiments are contemplated. The identification subsystem 108 may optionally be configured to have the capability of electrically connecting or disconnecting the power output from the power converter 104 from the USB connector 102 and/or to connect or disconnect any data inputs from the USB adapter 100 to the USB connector 102.

’111 Patent at 8:23–42 (emphasis added); *see id.* at 9:21–39. Any presumption of a difference in meaning between “generating” and “providing” is thus rebutted. *See CAE Screenplates Inc. v. Heinrich Fiedler GmbH & Co. KG*, 224 F.3d 1308, 1317 (Fed. Cir. 2000) (“*In the absence of any evidence to the contrary*, we must presume that the use of these different terms in the claims connotes different meanings.”) (emphasis added).

The specification thus demonstrates that the patentee used the term “generate” to mean “provide.” The dictionary definitions submitted by Defendants do not compel otherwise. *See* Dkt. No. 127, Ex. 22, *Webster’s New World Dictionary and Thesaurus* 265 (2d ed. 2002)

(“1[.] to produce (offspring); beget”; “2[.] to bring into being”); *see also id.*, Ex. 23, *Oxford Paperback Dictionary, Thesaurus, and Wordpower Guide* 373 (2001) (“1[.] cause to arise or come about. 2[.] produce (energy).”). Likewise, Defendants have not adequately supported their suggestion of requiring an “active mechanism” (Dkt. No. 127 at 15) and, whatever meaning of that phrase is intended by Defendants, the breadth of the above-reproduced disclosure weighs against imposing any “active mechanism” requirement.

Finally, as to Plaintiff’s proposal of a plain meaning construction, the *International Rectifier* case cited by Plaintiff is inapplicable. *See Int’l Rectifier Corp. v. IXYS Corp.*, 361 F.3d 1363, 1374 (Fed. Cir. 2004) (finding error where district court used a dictionary definition of a synonym of the disputed term rather than a definition of the disputed term itself). Instead, “some construction of the disputed claim language will assist the jury to understand the claims.” *TQP Dev., LLC v. Merrill Lynch & Co., Inc.*, No. 2:08-CV-471, 2012 WL 1940849, at *2 (E.D. Tex. May 29, 2012) (Bryson, J., sitting by designation).

The Court therefore hereby construes the disputed terms as set forth in the following chart:

<u>Term</u>	<u>Construction</u>
“generate”	“provide”
“generating”	“providing”

M. “adapter”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
Not limiting as part of preamble; alternatively, plain and ordinary meaning; no construction necessary	Adapter is limiting “power adapter”

Dkt. No. 103, Ex. B1 at 18; Dkt. No. 123 at 15; Dkt. No. 135, Ex. A1 at 5; *see* Dkt. No. 103, Ex. A1 at 84. The parties submit that this term appears in Claims 1–3, 6–8, 12, and 14–18 of the ’111 Patent and Claims 1, 3–8, 10, and 12–17 of the ’550 Patent. Dkt. No. 103, Ex. B1 at 18; *see* Dkt. No. 135, Ex. A1 at 5; *see also id.*, Ex. A1 at 84 (“’550, all claims”); Dkt. No. 127 at 12 (“’111/’550: all claims”).

In *Samsung*, this term was not presented as a distinct disputed term.

Shortly before the start of the March 26, 2018 hearing, the Court provided the parties with the following preliminary constructions: “Plain meaning (As to the ’111 Patent, this term appears as part of the larger terms ‘USB adapter’ and ‘Universal Serial Bus (‘USB’) adapter,’ which are addressed above.) (As to the ’550 Patent, this term appears in the bodies of the claims and is limiting.).”

(1) The Parties’ Positions

Plaintiff argues: “Defendants’ proposed construction is no construction at all as it incorporates the very term to be construed into the construction. Defendants therefore indirectly concede that the meaning for ‘adapter’ is clear and no further interpretation is required.” Dkt. No. 123 at 15.

Defendants respond that “[l]ike ‘USB adapter,’ the term ‘adapter’ is limiting because (i) it provides an essential structural element and ‘the framework of the invention’; [and] (ii) provides an antecedent basis in the claims.” Dkt. No. 127 at 13 (citations omitted). Defendants argue that “[a]dapter’ is used within the specifications to refer to a particular adapter – a ‘power adapter,’” and Defendants submit that Plaintiff’s previous proposal for “USB adapter” (“power adapter with USB connector”) is consistent with Defendants’ proposal as to “adapter.” *Id.* (citing Dkt. No. 103, Ex. A1 at 27).

Plaintiff replies that “[t]he term ‘adapter’ in the ’550 preambles . . . [is] not limiting for the same reasons” as for the above-discussed “USB adapter” term in the ’111 Patent. Dkt. No. 130 at 2 n.1. Plaintiff also argues that “Defendants’ construction for ‘adapter’ is further improper because it merely restates the claim term with additional unrecited limitations.” *Id.* at 2.

At the March 26, 2018 hearing, the parties did not present any oral argument as to this term.

(2) Analysis

As to the ’111 Patent, this term appears as part of the larger terms “USB adapter” and “Universal Serial Bus (‘USB’) adapter,” which are addressed above. *See Samsung* at 22–26.

The independent claims of the ’550 Patent recite (emphasis added):

1. An *adapter* comprising:
a USB VBUS line and a USB communication path,
said *adapter* configured to supply current on the VBUS line without
regard to at least one associated condition specified in a USB specification.

* * *

10. An *adapter* comprising:
a USB VBUS line and a USB communication path,
said *adapter* configured to supply current on the VBUS line without
regard to at least one USB Specification imposed limit.

Because the term “adapter” appears in the bodies of these claims, the term “adapter” is a limitation of these claims.

As to the proper construction, Defendants’ have cited introductory statements in the Background section of the written description. *See* ’550 Patent at 1:46–48 (“This invention relates generally to power adapters. More particularly, the invention relates to power adapters for use with mobile devices.”). On balance, Defendants’ reliance on these statements is

unavailing. Defendants’ proposal of “power adapter” would tend to confuse rather than clarify the scope of these claims, which already recite “said adapter configured to supply current on the VBUS line.”

The Court therefore hereby expressly rejects Defendants’ proposed construction. No further construction is necessary, particularly in light of the context provided by surrounding claim language as to how the adapter is “configured.” See *U.S. Surgical Corp. v. Ethicon, Inc.*, 103 F.3d 1554, 1568 (Fed. Cir. 1997) (“Claim construction is a matter of resolution of disputed meanings and technical scope, to clarify and when necessary to explain what the patentee covered by the claims, for use in the determination of infringement. It is not an obligatory exercise in redundancy.”); see also *O2 Micro Int’l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1362 (Fed. Cir. 2008) (“[D]istrict courts are not (and should not be) required to construe every limitation present in a patent’s asserted claims.”); *Finjan, Inc. v. Secure Computing Corp.*, 626 F.3d 1197, 1207 (Fed. Cir. 2010) (“Unlike *O2 Micro*, where the court failed to resolve the parties’ quarrel, the district court rejected Defendants’ construction.”); *ActiveVideo Networks, Inc. v. Verizon Commcn’s, Inc.*, 694 F.3d 1312, 1326 (Fed. Cir. 2012); *Summit 6, LLC v. Samsung Elecs. Co., Ltd.*, 802 F.3d 1283, 1291 (Fed. Cir. 2015).

The Court accordingly hereby construes “**adapter**” to have its **plain meaning**.

N. “means for receiving energy from a power socket”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
<p>FISI adopts the Court’s construction from the <i>Samsung</i> litigation. 2:17-cv-00145 (D.I. 140).</p> <p>Function: “receiving energy from a power socket”</p> <p>Structure: “a plug unit and/or plug adapter compatible with a North American power socket, a UK power socket, a European power socket, or a car power socket; and equivalents”</p>	<p>Function: “receiving energy from a power socket”</p> <p>Structure: “plug unit 106 and 306, and plug adapters 114 and 314”</p>

Dkt. No. 103, Ex. A1 at 93; *id.*, Ex. B1 at 13; Dkt. No. 123 at 16; Dkt. No. 135, Ex. A1 at 6. The parties submit that this term appears in Claim 18 of the ’111 Patent. Dkt. No. 103, Ex. A1 at 93; *id.*, Ex. B1 at 13; Dkt. No. 135, Ex. A1 at 6.

Plaintiff proposes the construction that the parties agreed upon in *Samsung*. *Samsung* at 48. Defendants’ response brief does not address this term. *See* Dkt. No. 127. Shortly before the start of the March 26, 2018 hearing, the Court provided the parties with a preliminary construction identical to the construction agreed upon in *Samsung*. At the March 26, 2018 hearing, Defendants confirmed that they are in agreement.

The Court accordingly hereby finds that **“means for receiving energy from a power socket”** is a means-plus-function term, the function is **“receiving energy from a power socket,”** and the corresponding structure is **“a plug unit and/or plug adapter compatible with a North American power socket, a UK power socket, a European power socket, or a car power socket; and equivalents.”**

O. “means for regulating the received energy from the power socket to generate a power output”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
Function: “regulating the received energy from the power socket to generate a power output” Structure: “power converter 104/304, including at least one of a switching converter, a transformer, a DC source, a voltage regulator, a linear regulator, or rectifier; and equivalents”	Function: “regulating the received energy from the power socket to generate a power output” Structure: “power converter 104 or 304”

Dkt. No. 103, Ex. A1 at 96; *id.*, Ex. B1 at 13; Dkt. No. 123 at 16; Dkt. No. 135, Ex. A1 at 6. The parties submit that this term appears in Claim 18 of the ’111 Patent. Dkt. No. 103, Ex. A1 at 96; *id.*, Ex. B1 at 13; Dkt. No. 135, Ex. A1 at 6.

Plaintiff proposes the construction that the parties agreed upon in *Samsung*. *Samsung* at 10. Defendants’ response brief does not address this term. *See* Dkt. No. 127. Shortly before the start of the March 26, 2018 hearing, the Court provided the parties with the following preliminary construction: “Function: ‘regulating the received energy from the power socket to generate a power output’”; and “Corresponding Structure: ‘power converter 104/304 including at least one of a switching converter, a transformer, a DC source, a voltage regulator, a linear regulator, or rectifier; and equivalents thereof.’” At the March 26, 2018 hearing, Defendants confirmed that they are in agreement.

The Court accordingly hereby finds that **“means for regulating the received energy from the power socket to generate a power output”** is a means-plus-function term, the claimed function is **“regulating the received energy from the power socket to generate a power output,”** and the corresponding structure is **“power converter 104/304 including at**

least one of a switching converter, a transformer, a DC source, a voltage regulator, a linear regulator, or rectifier; and equivalents thereof.”

P. “means for generating an identification signal that indicates to the mobile device that the power socket is not a USB hub or host”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
<p>FISI adopts the Court’s construction from the <i>Samsung</i> litigation. 2:17-cv-00145 (D.I. 140).</p> <p>Function: “generating an identification signal that indicates to the mobile device that the power socket is not a USB hub or host”</p> <p>Structure: “an identification subsystem 108 and equivalents thereof”²⁴</p>	<p>Function: “generating an identification signal that indicates to the mobile device that the power socket is not a USB hub or host”</p> <p>Structure: Indefinite</p>

Dkt. No. 103, Ex. B1 at 14; Dkt. No. 123 at 16; Dkt. No. 135, Ex. A1 at 6. The parties submit that this term appears in Claim 18 of the ’111 Patent. Dkt. No. 103, Ex. A1 at 98–99; *id.*, Ex. B1 at 14; Dkt. No. 135, Ex. A1 at 6–7.

In *Samsung*, the Court found that “the claimed function is ‘generating an identification signal that indicates to the mobile device that the power socket is not a USB hub or host,’ and the corresponding structure is ‘identification subsystem 108, and equivalents thereof.’” *Samsung* at 50–51.

Shortly before the start of the March 26, 2018 hearing, the Court provided the parties with a preliminary construction identical to the *Samsung* construction.

²⁴ Plaintiff previously proposed: “an identification subsystem such as one that includes a hardwired connection or a USB controller, or one that can electrically connect or disconnect power or data lines from the USB connector; and the equivalents thereof.” Dkt. No. 103, Ex. A1 at 98–99.

(1) The Parties' Positions

Plaintiff argues:

The patents teach that a USB adapter provides an identification signal to indicate to a mobile device that it is connected to an “alternate power source” such as an AC outlet or DC car socket as opposed to a normal USB host or hub. . . . ‘111, 1:59–67, 8:23–25, 9:3–8, 9:26–42, 9:60–65; Ex. 10, ¶ 75. The patent expressly describes the structures that provide this signal. ‘111, 8:29–42, Ex. 22, original claims 8–10; Ex. 10, ¶ 74. *See also* CC Order [(*Samsung*)] at 49–51.

Dkt. No. 123 at 16.

Defendants respond:

The specification nowhere describes structure that indicates whether the *power socket* is or is not a USB hub or host and is therefore indefinite. FISI identifies structure for indicating to the mobile device that an *adapter* is connected to the mobile device, but that indicates nothing about whether the *power socket* (in which the adapter plugs) is a hub or host. Ex. 12 ¶¶ 155–156.

Dkt. No. 127 at 15.

Plaintiff replies:

The specification expressly teaches that the identification system indicates to the mobile device that it is connected to an alternative power source or socket, rather than a USB hub or host. ‘111 at 8:17–42. Defendants’ distinction between a power source and power socket is immaterial. *See id.* at 1:54–67; *see also* SSCC [(*Samsung*) at] 50.

Dkt. No. 130 at 7.

At the March 26, 2018 hearing, the parties did not present any oral argument as to this term.

(2) Analysis

Samsung addressed the same arguments that Defendants have presented here. *See Samsung* at 49. The Court reaches the same conclusion here as in *Samsung* for the same reasons set forth in *Samsung*. *See id.* at 48–51.

The Court accordingly hereby find that **“means for generating an identification signal that indicates to the mobile device that the power socket is not a USB hub or host”** is a means-plus-function term, the claimed function is **“generating an identification signal that indicates to the mobile device that the power socket is not a USB hub or host,”** and the corresponding structure is **“identification subsystem 108, and equivalents thereof.”**

Q. “means for coupling the power output and identification signal to the mobile device”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
Function: “coupling the power output and identification signal to the mobile device” Structure: “USB connector 102 and/or USB connector 54; and equivalents thereof” ²⁵	Defendants adopt the Court’s construction from the <i>Samsung</i> litigation. 2:17-cv-00145 (D.I. 140). Function: “coupling the power output and identification signal to the mobile device” Structure: “USB connector 102 and USB connector 54; and equivalents thereof” ²⁶

Dkt. No. 123 at 16; Dkt. No. 135, Ex. A1 at 7. The parties submit that this term appears in Claim 18 of the ’111 Patent. Dkt. No. 103, Ex. A1 at 103; *id.*, Ex. B1 at 13; Dkt. No. 135, Ex. A1 at 7.

In *Samsung*, the Court found that “the claimed function is ‘coupling the power output and identification signal to the mobile device,’ and the corresponding structure is ‘USB connector 102 and USB connector 54; and equivalents thereof.’” *Samsung* at 53.

²⁵ Plaintiff previously proposed: “a USB connector; and the equivalents thereof.” Dkt. No. 103, Ex. A1 at 103.

²⁶ Defendants previously proposed: “USB connector 102 and 302 and USB connector 54 as shown in Figures 2 and 4.” Dkt. No. 103, Ex. B1 at 15.

Shortly before the start of the March 26, 2018 hearing, the Court provided the parties with a preliminary construction identical to the *Samsung* construction.

(1) The Parties' Positions

Plaintiff argues:

The Court previously found that the corresponding structure includes both USB connector 102 and USB connector 54. CC Order [(*Samsung*)] at 52–53. Respectfully, although USB connector 54 can be part of the structure for coupling, it is not necessary. Rather, connector 102 on its own provides for the recited function. *E.g.* [], Ex. 10, ¶¶ 76–77; '111, Fig. 2, claim 20.

Dkt. No. 123 at 16–17.

Defendants respond:

The Court found that the structure requires both “USB connector 102 and USB connector 54.” [*Samsung*] at 52–53. Defendants agree. Ex. 12 ¶¶ 158–159. FISI claims that the USB connector 54 is not necessarily required. Brief 16–17. The Court has rejected that position. [*Samsung*] at 52–53.

Dkt. No. 127 at 15.

At the March 26, 2018 hearing, the parties presented oral arguments as to this term. In particular, Plaintiff cited disclosures in the specification regarding “a primary USB connector.” *See* '111 Patent at 2:19–34.

(2) Analysis

Samsung addressed substantially the same arguments that Plaintiff has presented here. *See Samsung* at 51–53. The Court reaches the same conclusion here as in *Samsung* for the same reasons set forth in *Samsung*. *See id.* The disclosures cited by Plaintiff regarding “a primary USB connector” do not compel otherwise. *See* '111 Patent at 2:19–34. In particular, Plaintiff has not demonstrated that “the specification . . . *clearly links or associates* that structure to the function recited in the claim.” *Med. Instrumentation & Diagnostics Corp. v. Elekta AB*, 344 F.3d 1205, 1219 (Fed. Cir. 2003) (emphasis added; citation and internal quotation marks

omitted). Instead, the corresponding structure includes both the “USB connector 102” and the “USB connector 54.” *See Samsung* at 52–53; *see, e.g.,* ’111 Patent at 6:15–17 (“The USB connector 54 is the physical component that couples the USB port to the outside world.”)

The Court therefore hereby finds that **“means for coupling the power output and identification signal to the mobile device”** is a means-plus-function term, the claimed function is **“coupling the power output and identification signal to the mobile device,”** and the corresponding structure is **“USB connector 102 and USB connector 54; and equivalents thereof.”**

V. CONSTRUCTION OF DISPUTED TERMS IN THE ’319 PATENT FAMILY²⁷

R. “USB”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
USB should only be construed as part of the term in which it appears	“USB is an abbreviation for ‘Universal Serial Bus,’ which is a computer standard technology described in Universal Serial Bus Specification Revision 2.0 and other versions of this standard promulgated at the time of the claimed invention.”

²⁷ In its opening claim construction brief, Plaintiff submits: “For the terms USB port and non-USB source, Fundamental has adopted the Court’s construction from the *Samsung* case that these terms be given the [*sic*, their] plain meaning. Because Defendants have asserted that these terms need not be construed (Dkt. 103-6 at 14-15), Fundamental is not addressing them further in this brief.” Dkt. No. 123 at 17 n.7. Defendants responded: “Defendants, however, seek constructions for all ‘USB’ terms, have sought plain and ordinary meaning for the rest of the terms, and have sought back up constructions for these specific terms.” Dkt. No. 127 at 28. In the parties’ March 9, 2018 Joint Claim Construction Chart Pursuant to P.R. 4-5(d), the parties agreed that “non-USB source” should be construed as follows: “Plain meaning in light of the Court’s construction of ‘USB.’” Dkt. No. 135, Ex. A2 at 5. As to “USB port” in claims of the ’319 Patent, Defendants stated in the Joint Claim Construction Chart: “Limiting as part of preamble.” *Id.* at 4. At the March 26, 2018 hearing, Defendants urged that the term “USB port” is limiting in the preambles of Claims 1 and 18 of the ’111 Patent (addressed above), but Defendants did not present any such statement as to the ’319 Patent Family. Further, no such argument appears in Defendants’ response brief. *See* Dkt. No. 127 at 28–29. Defendants thus have not adequately supported any assertion that the term “USB port” is limiting in the

Dkt. No. 103, Ex. A2 at 19; *id.*, Ex. B2 at 1. The parties submit that this term appears in Claims 1, 2, and 13–20 of the ’319 Patent and Claim 7 of the ’514 Patent. Dkt. No. 103, Ex. B2 at 1; *see id.*, Ex. A2 at 19 (“various”).

In *Samsung*, the Court construed this term to mean “Universal Serial Bus as described in Universal Serial Bus Specification Revision 2.0 and related versions of this standard at the time of the claimed invention.” *Samsung* at 81.

In the parties’ March 9, 2018 Joint Claim Construction Chart, the parties submit that they have agreed upon applying the *Samsung* construction. Dkt. No. 135, Ex. A2 at 4. Shortly before the start of the March 26, 2018 hearing, the Court provided the parties with a preliminary construction identical to the *Samsung* construction. At the hearing, no party objected to this construction.

The Court accordingly hereby construes “USB” to mean **“Universal Serial Bus as described in Universal Serial Bus Specification Revision 2.0 and related versions of this standard at the time of the claimed invention.”**

S. “battery charge controller”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
FISI adopts the Court’s construction from the <i>Samsung</i> litigation. 2:17-cv-00145 (D.I. 140). “controller that manages charging of a battery”	“a standard battery charge controller that manages charging of the battery, including regulating the voltage and current levels to the battery”

preambles of any of the claims of the ’319 Patent Family. The Court therefore hereby expressly rejects Defendants’ assertion in that regard.

Dkt. No. 103, Ex. A2 at 1; *id.*, Ex. B2 at 3; Dkt. No. 123 at 17; Dkt. No. 127 at 16; Dkt. No. 135, Ex. A2 at 1. The parties submit that this term appears in Claims 1, 14, and 19 of the '319 Patent and Claims 1, 18, and 20 of the '514 Patent. Dkt. No. 103, Ex. B2 at 3; *see* Dkt. No. 135, Ex. A2 at 1; *see also id.*, Ex. A2 at 1 (“’319, ’514, all claims”); Dkt. No. 127 at 16 (same).

In *Samsung*, the Court construed this term to mean “controller that manages charging of a battery.” *Samsung* at 56.

Shortly before the start of the March 26, 2018 hearing, the Court provided the parties with a preliminary construction identical to the *Samsung* construction.

(1) The Parties’ Positions

Plaintiff argues that “[t]he claims . . . make clear that the battery charge controller is part of a larger circuitry,” and “[t]he specification likewise teaches that a battery charge controller need not be the entire battery charger IC, but one functional unit ‘employ[ed]’ by the IC.” Dkt. No. 123 at 18 (quoting ’319 Patent at 1:22–24). Plaintiff also argues that “[b]ecause the plain language of the claims is not limited to standard battery charge controllers, it would be improper to limit the claims to only those embodiments that use a standard battery charge controller.” Dkt. No. 123 at 18.

Defendants respond that “the construction of the term battery charge controller should not only require an actual ‘controller,’ but should ensure that the controller is a ‘standard’ controller with all the corresponding features and functions.” Dkt. No. 127 at 16.

Plaintiff replies that “[w]hile the intrinsic evidence explains that the claimed invention may have certain advantages when used with a standard battery charge controller, it does not disclaim the use of non-standard controllers.” Dkt. No. 130 at 7. Plaintiff also argues that “[t]he second portion of Defendants’ construction should be rejected because it imports an extraneous

limitation based on exemplary functionality in the specification.” *Id.* (citing ’319 Patent at 1:22–28).

At the March 26, 2018 hearing, the parties presented oral arguments as to this term. In particular, Defendants urged that their proposal of requiring a “standard” battery charge controller is supported by multiple disclosures in the specification as to using “standard” or “off the shelf” battery charge controllers. *See* ’319 Patent at 4:3–7, 5:30–33, 6:9–16, 7:56–58 & 9:65–67; *see also id.* at 3:51–58 (“New, dedicated battery charge controllers could be developed which are designed to operate with a USB power supply and a portable device 18, but that would be an expensive and complicated solution.”).

(2) Analysis

The Summary of the Invention, for example, states:

It is therefore an object of the invention to provide a novel method and apparatus which allows *standard* battery charge controllers to be supplied from standard computer data ports and other power sources, which obviates or mitigates at least one of the disadvantages of the prior art.

’319 Patent at 4:3–7 (emphasis added). The specification further discloses:

The total power consumed may therefore be modulated to stay within the limits of the power available from the USB port 12, and within the range of power that the battery charge controller 20 is able to dissipate. *This allows battery charge controllers 20 to be used “off the shelf”*, rather than having to design new and larger battery charge controllers 20 which can dissipate enough power to supply both the portable device 18 and battery 24. It also allows the battery charge controller 20 or external driving element to be kept physically small.

Id. at 6:9–17 (emphasis added); *see id.* at 5:30–33 (“a battery charging circuit built around a standard battery charge controller 20”).

Defendants have not demonstrated, however, that anything in the claims or the specification attributes special significance to using a “standard” battery charge controller. *See id.* at 3:59–4:7. Instead, this is an exemplary objective or a specific feature of particular

preferred embodiments that should not be imported into the claims. *See Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 908 (Fed. Cir. 2004) (“The fact that a patent asserts that an invention achieves several objectives does not require that each of the claims be construed as limited to structures that are capable of achieving all of the objectives.”); *see also Comark Commc’ns*, 156 F.3d at 1187; *Phillips*, 415 F.3d at 1323. As Plaintiff has pointed out, the specification sometimes uses the term “battery charge controller” without using the word “standard.” *See, e.g.*, ’319 Patent at 13:27–29.

Defendants have also cited prosecution history in which the patentee stated: “This allows battery charge controllers 20 to be used ‘off the shelf’, rather than having to design new and larger battery charge controllers 20 which can dissipate enough power to supply both the portable device 18 and battery 24.” Dkt. No. 127, Ex. 27, Nov. 2, 2007 Response to Office Action Dated August 3, 2007 at 11–12. This does not, however, amount to a definitive statement that the term “battery charge controller” is limited to being “off the shelf.” *See Omega Eng’g*, 334 F.3d at 1324 (“As a basic principle of claim interpretation, prosecution disclaimer promotes the public notice function of the intrinsic evidence and protects the public’s reliance on *definitive* statements made during prosecution.”) (emphasis added); *see also Liebel-Flarsheim*, 358 F.3d at 908 (quoted above).

As to the remainder of Defendants’ proposal, the Background of the Invention discloses functionality of battery charge controllers as follows:

The battery chargers of these portable devices also generally employ a “battery charge controller” to manage the charging of the battery. Such battery charge controllers offer functionality such as:

- regulating the voltage and current levels to the rechargeable battery;*
- providing status signals to the main processor of the portable device, or
- operating one or more status LEDs (light emitting diodes);
- providing protection circuits such as overcurrent, undervoltage, reverse polarity and overtemperature protection; and

shutting themselves off when the charging source has been removed, to minimize battery drain.

'319 Patent at 1:22–35 (emphasis added).

First, this list of functionality is introduced by the phrase “such as,” which indicates that this list is exemplary rather than definitional. Certainly, Defendants have not demonstrated that this disclosure amounts to a lexicography. *See Renishaw PLC v. Marposs Societa' per Azioni*, 158 F.3d 1243, 1249 (Fed. Cir. 1998) (“The patentee’s lexicography must, of course, appear with reasonable clarity, deliberateness, and precision before it can affect the claim.”); *see also CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed. Cir. 2002) (“the claim term will not receive its ordinary meaning if the patentee acted as his own lexicographer and *clearly* set forth a definition of the disputed claim term in either the specification or prosecution history”) (emphasis added); *Thorner v. Sony Computer Entm't Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012) (“To act as its own lexicographer, a patentee must *clearly* set forth a definition of the disputed claim term other than its plain and ordinary meaning.”) (emphasis added; citation and internal quotation marks omitted).

Second, the claims here at issue already provide context as to the functionality of the “battery charge controller.” Claim 1 of the '319 Patent, for example, recites (emphasis added):

1. A battery charging circuit, comprising:
 - a semiconductor switch having an output connected to a rechargeable battery and configurable to isolate the rechargeable battery from a portable device;
 - a *battery charge controller configured* to receive power from an external universal serial bus (USB) port, and supply output power to the portable device having at least one function unrelated to the *battery charge controller* and to the rechargeable battery through the switch;
 - the *battery charge controller being further configured* to limit the output power such that the portable device and the rechargeable battery may not draw more than a pre-determined maximum current available from the USB port; and
 - a voltage sensing circuit configured to measure a voltage drop across the *battery charge controller*, and respond to the voltage drop across the battery

charge controller by modulating the switch to control an amount of current supplied to the rechargeable battery such that the portable device receives a predetermined amount of power needed to operate and the rechargeable battery receives a remainder of the power available from the *battery charge controller*.

Thus, Defendants have not demonstrated that the above-reproduced disclosure regarding particular exemplary features should be imported into the term “battery charge controller.” The *Trading Technologies* case cited by Defendants does not compel otherwise. *Trading Techs. Int’l, Inc. v. eSpeed, Inc.*, 595 F.3d 1340, 1354 (Fed. Cir. 2010) (rejecting interpretation that would “defy the invention’s goal”).

The Court therefore hereby construes “**battery charge controller**” to mean “**controller that manages charging of a battery.**”

T. “voltage drop across [a/the] battery charge controller”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
“voltage difference between two terminals of (a/the) battery charge controller”	Defendants adopt the Court’s construction from the <i>Samsung</i> litigation. 2:17-cv-00145 (D.I. 140). “voltage drop between a power input of a battery charge controller and a power output of the battery charge controller” ²⁸

Dkt. No. 103, Ex. A2 at 5; Dkt. No. 123 at 18; Dkt. No. 135, Ex. A2 at 1. The parties submit that this term appears in Claims 1, 14, and 19 of the ’319 Patent and Claims 1, 18, and 20 of the ’514 Patent. Dkt. No. 103, Ex. B2 at 3; *see* Dkt. No. 135, Ex. A2 at 1; *see also id.*, Ex. A2 at 5 (“’319 and ’514, all claims”); Dkt. No. 127 at 18 (same).

²⁸ Defendants previously proposed: “difference in voltage measured at the power input and battery charging output of the battery charge controller.” Dkt. No. 103, Ex. B2 at 3; Dkt. No. 127 at 18.

In *Samsung*, the Court construed these terms to mean “voltage drop between a power input of a battery charge controller and a power output of the battery charge controller.”

Samsung at 59.

Shortly before the start of the March 26, 2018 hearing, the Court provided the parties with a preliminary construction identical to the *Samsung* construction.

(1) The Parties’ Positions

Plaintiff argues that whereas “[o]ne way to measure voltage drop compares the voltage at the input and output of the battery charge controller, another way to measure compares the output of the battery charge controller with a reference voltage.” Dkt. No. 123 at 19.

Defendants respond that *Samsung* “correctly found that . . . Figure[] 6 was not an embodiment of claim 1 of the ’319 patent.” Dkt. No. 127 at 19. Defendants also argue that “FISI’s . . . proposed construction of ‘terminals’ would also cover comparisons between terminals that have no relationship to the voltage drop across a battery charge controller and has no support in the intrinsic record.” *Id.* at 20.

Plaintiff replies: “FISI’s construction does not remove the words ‘across the battery charge controller’—the measurement or response must be tied to a voltage drop across the controller.” Dkt. No. 130 at 7–8.

At the March 26, 2018 hearing, the parties presented oral arguments as to this term.

(2) Analysis

Samsung addressed substantially the same issues that have been presented here. *See Samsung* at 56–59. The Court reaches the same conclusion here as in *Samsung* for the same reasons set forth in *Samsung*. *See id.*; *see also id.* at 58 (“the construction should clarify that the voltage difference is between a power input and a power input [*sic*, output]”); *see, e.g., PPC*

Broadband, Inc. v. Corning Optical Commc'ns RF, LLC, 815 F.3d 747, 755 (Fed. Cir. 2016) (“It is not necessary that each claim read on every embodiment.”) (citation and internal quotation marks omitted).

Also, Plaintiff’s arguments as to dependent Claim 4 of the ’319 Patent and dependent Claim 4 of the ’514 Patent are unpersuasive in light of the recital therein of not just a reference voltage signal but also an “operational amplifier” for comparing with a reference voltage signal and responding by reducing current. Alternatively and in addition, the word “across” in the limitation here at issue should be given effect in the construction even if some of the dependent claims might be interpreted as inconsistent with that limitation. *See Enzo Biochem Inc. v. Applera Corp.*, 780 F.3d 1149 (Fed. Cir. 2015) (“[D]ependent claims cannot broaden an independent claim from which they depend.”)

Finally, to whatever extent Defendants are maintaining their original proposed construction, Defendants have not justified departing from the *Samsung* construction, in particular as to Defendants’ original proposal of “measured.”

The Court therefore hereby construes **“voltage drop across [a/the] battery charge controller”** to mean **“voltage drop between a power input of a battery charge controller and a power output of the battery charge controller.”**

U. “power”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
FISI adopts the Court’s construction from the <i>Samsung</i> litigation. 2:17-cv-00145 (D.I. 140). “electricity” ²⁹	“product of voltage and current”

Dkt. No. 103, Ex. B2 at 5; Dkt. No. 123 at 21; Dkt. No. 127 at 22; Dkt. No. 135, Ex. A2 at 2.

The parties submit that this term appears in Claims 1, 14–16, 19, and 20 of the ’319 Patent and Claims 1, 6, 17, 18, and 20 of the ’514 Patent. Dkt. No. 103, Ex. B2 at 5; *see* Dkt. No. 135, Ex. A2 at 3; *see also id.*, Ex. A2 at 30 (“’319, ’514, all terms [*sic*, claims]”); *see also* Dkt. No. 127 at 22 (“all claims”).

In *Samsung*, the Court construed this term to mean “electricity.” *Samsung* at 61.

Shortly before the start of the March 26, 2018 hearing, the Court provided the parties with the following preliminary construction: “electricity.”

(1) The Parties’ Positions

Plaintiff argues that “[a]s the Court noted [in *Samsung*], the patents use power in an informal sense.” Dkt. No. 123 at 21 (citing *Samsung* at 60).

Defendants respond that “Defendants’ proposed construction will help the jury to understand the claims of the Veselic Patents, which discuss the relationship of power, voltage, and current.” Dkt. No. 127 at 22. Defendants argue that the language of Claim 1 of the ’319 Patent, for example, “confirms that the term power has voltage and current components, consistent with Defendants’ construction and the fundamental formula $P=VI$.” *Id.* at 23. Finally,

²⁹ Plaintiff previously proposed: “No additional construction necessary at this time (*i.e.*, plain and ordinary meaning in light of the intrinsic evidence) or ‘electrical energy supplied from a source.’” Dkt. No. 103, Ex. A2 at 30.

Defendants argue that “[i]f the court agrees with FISI’s expert that the term power can be interpreted to mean different things for different claims, the Court should find the term indefinite.” *Id.* at 24.

Plaintiff replies that “[a]s the Court has recognized, the Veselic patents use ‘power’ to refer, in a colloquial sense, to electricity—not to signify the formal physics relationship of power = current * voltage.” Dkt. No. 130 at 9. Plaintiff also argues that “Defendants’ newly raised indefiniteness argument (DBr. [(Dkt. No. 127) at] 24) lacks merit because power is used consistently across claims, even if the power being referenced may be *measured* in different ways.” Dkt. No. 130 at 9.

At the March 26, 2018 hearing, the parties presented oral arguments as to this term. For example, Defendants highlighted that in one instance the specification refers to “2.55 W[atts] of power.” ’319 Patent at 8:44–45.

(2) Analysis

Samsung addressed substantially the same arguments that Defendants have presented here. *See Samsung* at 59–61. The Court reaches the same conclusion here as in *Samsung* for the same reasons set forth in *Samsung*. *See Samsung* at 60–61; *see also* Dkt. No. 123, Feb. 7, 2018 Fernald Decl. at ¶¶ 105–09; ’319 Patent at 1:19–21 (“convert the AC *power* into a low DC *voltage* for recharging a battery”) (emphasis added). The case law cited by Defendants as to a different, unrelated patent is unpersuasive. *See Symbol Techs., Inc. v. Janam Techs. LLC*, 605 F. Supp. 2d 618, 621–22 (D. Del. 2009) (“the usage of ‘power’ and ‘voltage’ throughout the patent supports the conclusion that the patentees intended these terms to have different, though related, meanings”); *see also e.Digital Corp. v. Futurewei Techs., Inc.*, 772 F.3d 723, 727 (Fed. Cir. 2014) (noting “the well-understood notion that claims of unrelated patents must be construed

separately” and that “a claim of an unrelated patent ‘sheds no light on’ the claims of the patent in suit”) (citations omitted). The opinions of Defendants’ expert are likewise unpersuasive. *See* Dkt. No. 127, Ex. 12, Feb. 21, 2018 Dezmelyk Decl. at ¶¶ 181–88.

The Court therefore hereby construes “**power**” to mean “**electricity.**”

V. “such that . . . the rechargeable battery receives a remainder of [the] power available from the battery charge controller” and “such that . . . the rechargeable battery receives a remainder of the received power”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
<p>“[such that . . . the rechargeable battery receives] <i>a portion</i> of the power available from the battery charge controller that is not used by the portable device”</p> <p>“[such that . . . the rechargeable battery receives] <i>a portion</i> of the power received from the USB port that is not used by portable device”</p>	<p>Defendants adopt the Court’s construction from the <i>Samsung</i> litigation. 2:17-cv-00145 (D.I. 140).</p> <p>“the remaining power available from the battery charge controller”</p> <p>“the remaining received power”³⁰</p>

Dkt. No. 103, Ex. A2 at 36; Dkt. No. 123 at 21 (emphasis Plaintiff’s); Dkt. No. 135, Ex. A2 at 3.

The parties submit that these terms appear in Claims 1, 14, 19, and 20 of the ’319 Patent and Claim 20 of the ’514 Patent. Dkt. No. 103, Ex. B2 at 7; *see* Dkt. No. 135, Ex. A2 at 3; *see also id.*, Ex. A2 at 36 (“’319, ’514, all claims”).

In *Samsung*, the Court construed “a remainder of [the] power available from the battery charge controller” and “a remainder of the received power” to mean “the remaining power available from the battery charge controller” and “the remaining received power,” respectively. *Samsung* at 65.

³⁰ Defendants previously proposed: “such that . . . the [rechargeable] battery receives any additional available power from the battery charge controller” and “such that . . . the rechargeable battery receives any additional available power received.” Dkt. No. 103, Ex. B2 at 7.

Shortly before the start of the March 26, 2018 hearing, the Court provided the parties with the following preliminary constructions for the two disputed terms presented here, respectively: “such that . . . the rechargeable battery receives the remaining power available from the battery charge controller”; and “such that . . . the rechargeable battery receives the remaining received power.”

(1) The Parties’ Positions

Plaintiff argues that “the claims and specification indicate that the indefinite article ‘a’ should not be limited to ‘the.’” Dkt. No. 123 at 22. Plaintiff urges that “if any portion of the available power is provided to the battery, the claim is satisfied, even if some portion goes elsewhere.” *Id.*

Defendants respond that Plaintiff’s argument was rejected by the Court in *Samsung*. Dkt. No. 127 at 24–25. Defendants also argue that “FISI’s argument is implausible” because it “would allow any portion of the available power to be routed to the rechargeable battery, regardless of the available power.” *Id.* at 25.

Plaintiff replies that “[b]y reciting that ‘a remainder’ of the available power is provided to the battery, the claims contemplate that another portion of the remainder may be distributed elsewhere.” Dkt. No. 130 at 9. Plaintiff submits that this interpretation “is consistent with disclosed embodiments where power that is not provided to the system may be supplied to *both* the battery and ‘high-power consuming components.’” *Id.* (citing ’319 Patent at 9:10–20).

At the March 26, 2018 hearing, the parties presented oral arguments as to this term.

(2) Analysis

Plaintiff appears to propose interpreting these terms to encompass any “portion,” however small. Plaintiff has not justified departing from the finding in *Samsung* that “the most

reasonable reading of the claim language is that ‘a remainder’ refers to whatever power remains that is not otherwise *incidentally* lost or consumed, such as by other *related* components or by *connections between* components.” *Samsung* at 64 (emphasis added). This finding in *Samsung* was based on the Court’s interpretation of the claim language, “remainder,” and is adopted here notwithstanding Plaintiff’s interpretation of the disclosure in the specification regarding “high-power consuming components” that may be connected “to the battery side of Q3.” *See* ’319 Patent at 9:10–20. “It is not necessary that each claim read on every embodiment.” *PPC Broadband*, 815 F.3d at 755 (citation and internal quotation marks omitted).

Defendants have also presented prosecution history that is consistent with the *Samsung* finding. *See* Dkt. No. 127, Ex. 42, Oct. 22, 2009 Appeal Brief at 18 (regarding claim language reciting “a remainder,” referring to “modulating a switch to arrange for a predetermined power to reach the mobile device, with *the remainder* of the power reaching the rechargeable battery”) (emphasis added). At the March 26, 2018 hearing, Plaintiff argued that the “Matsuda” reference at issue in this prosecution history was merely distinguishable as being “all or nothing,” as Plaintiff put it, because the patentee stated that “the cited portion of Matsuda only discloses switching power on and off to the battery.” *Id.* Plaintiff has failed to demonstrate, however, why the statements made by the patentee should not be taken into consideration. *See Tech. Props. Ltd. LLC v. Huawei Techs. Co., Ltd.*, 849 F.3d 1349, 1359 (Fed. Cir. 2017) (“we hold patentees to the actual arguments made, not the arguments that could have been made”).

The Court thus reaches the same conclusion here as in *Samsung* for substantially the same reasons set forth in *Samsung*. *See Samsung* at 61–65.

The Court accordingly hereby construes the disputed terms as set forth in the following chart:

<u>Term</u>	<u>Construction</u>
“such that . . . the rechargeable battery receives a remainder of [the] power available from the battery charge controller”	“such that . . . the rechargeable battery receives the remaining power available from the battery charge controller”
“such that . . . the rechargeable battery receives a remainder of the received power”	“such that . . . the rechargeable battery receives the remaining received power”

W. “reference voltage” and “reference voltage signal”

“reference voltage”	
Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
“a voltage against which a voltage of interest is compared” ³¹	“a constant voltage used for comparison purposes”
“reference voltage signal”	
Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
“signal related to a reference voltage” ³²	“a constant voltage used for comparison purposes”

Dkt. No. 103, Ex. B2 at 8; Dkt. No. 123 at 22. The parties submit that these terms appear in Claims 4, 5, and 10 of the ’319 Patent and Claims 4, 5, 8, and 19 of the ’514 Patent. Dkt. No. 103, Ex. A2 at 39; *id.*, Ex. B2 at 8.

³¹ Plaintiff previously proposed: “a voltage level against which a voltage of interest is compared.” Dkt. No. 103, Ex. A2 at 39.

³² Plaintiff previously proposed: “a voltage level against which a voltage of interest is compared.” Dkt. No. 103, Ex. A2 at 39.

In *Samsung*, the Court construed these terms to mean “a voltage against which a voltage of interest is compared” and “signal related to a reference voltage,” respectively. *Samsung* at 68.

In their March 9, 2018 Joint Claim Construction Chart, the parties submit that they have agreed to the *Samsung* constructions. Dkt. No. 135, Ex. A2 at 3–4. Shortly before the start of the March 26, 2018 hearing, the Court provided the parties with preliminary constructions identical to the *Samsung* constructions. At the hearing, no party objected to these constructions.

The Court therefore hereby construes the disputed terms as set forth in the following chart:

<u>Term</u>	<u>Construction</u>
“reference voltage”	“a voltage against which a voltage of interest is compared”
“reference voltage signal”	“signal related to a reference voltage”

X. “a switch” and “a semiconductor switch”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
Plain meaning ³³	“a switch”: “single switch” “a semiconductor switch”: “single semiconductor switch”

Dkt. No. 103, Ex. B2 at 4; Dkt. No. 123 at 23. The parties submit that this term appears in Claims 1, 14, and 19 of the ’319 Patent and Claims 1, 2, 4, 15, 16, 18, and 20 of the ’514 Patent. Dkt. No. 103, Ex. B2 at 4; *id.*, Ex. A2 at 26 (“’319, ’514, all claims”).

³³ Plaintiff previously proposed: “Switch: one or more devices or circuits that control conductance between two nodes and that are capable of operating in on, off and non-transient linear modes”; and “Semiconductor switch: switch as defined above that comprises semiconductor material.” Dkt. No. 103, Ex. A2 at 26.

In *Samsung*, the Court construed these terms to have their plain meaning. *Samsung* at 71.

In their March 9, 2018 Joint Claim Construction Chart, the parties submit that they have agreed upon the following construction: “Plain and ordinary meaning; no construction necessary.” Dkt. No. 135, Ex. A2 at 4.

Shortly before the start of the March 26, 2018 hearing, the Court provided the parties with the following preliminary construction: “Plain and ordinary meaning; no construction necessary.” At the March 26, 2018 hearing, no party objected to this construction.

The Court therefore hereby construes “**a switch**” and “**a semiconductor switch**” as follows: “**Plain and ordinary meaning; no construction necessary.**”

Y. “voltage sensing circuit”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
Plain and ordinary meaning; no construction necessary	“circuit that measures the voltage drop across the battery charge controller and responds to the voltage drop across the battery charge controller by controlling the current flow through the switch to the rechargeable battery”

Dkt. No. 103, Ex. A2 at 80; *id.*, Ex. B2 at 10; Dkt. No. 123 at 24; Dkt. No. 127 at 21; Dkt. No. 135, Ex. A2 at 1. The parties submit that this term appears in Claims 1, 3–5, 14, and 19 of the ’319 Patent and Claims 1, 3–5, 8, and 9 of the ’514 Patent. Dkt. No. 103, Ex. B2 at 10; *see* Dkt. No. 135, Ex. A2 at 1; *see also id.*, Ex. A2 at 80 (“’319, claims 1, 14, and 19”; “’514, claim 1”); *see also* Dkt. No. 127 at 21 (“’319, ’514: all claims”).

In *Samsung*, the Court found that the term “the voltage sensing circuit” in Claims 7, 8, and 15–17 of the related ’983 Patent lacked antecedent basis, thus rendering those claims indefinite. *See Samsung* at 71–75. The Court did not otherwise construe this term. *See id.*

Shortly before the start of the March 26, 2018 hearing, the Court provided the parties with the following preliminary construction: “Plain meaning.”

(1) The Parties’ Positions

Plaintiff argues that “Defendants seek to add functions to the claimed voltage sensing circuit beyond those recited by the claims.” Dkt. No. 123 at 24. Further, Plaintiff submits that “Defendants’ construction would improperly reintroduce a limitation to the claims that the applicants expressly removed” during prosecution. *Id.*

Defendants respond that they “seek to construe the term ‘voltage sensing circuit’ so that it is consistent with the construction of the . . . ‘battery charge controller’ and ‘voltage drop across the battery charge controller’ terms.” Dkt. No. 127 at 21.

Plaintiff replies: “For example, ’319 claim 1 requires the voltage sensing circuit to measure *and* respond to a voltage drop, while ’514 claim 1 only requires the circuit to respond to a voltage drop.” Dkt. No. 130 at 8.

At the March 26, 2018 hearing, the parties presented oral arguments as to this term.

(2) Analysis

As to the ’319 Patent, Defendants’ proposed construction appears to be entirely redundant of other claim language. For example, Claim 1 of the ’319 Patent, recites, in relevant part:

1. A battery charging circuit, comprising:

...

a voltage sensing circuit configured to measure a voltage drop across the battery charge controller, and respond to the voltage drop across the battery charge controller by modulating the switch to control an amount of current supplied to the rechargeable battery such that the portable device receives a predetermined amount of power needed to operate and the rechargeable battery receives a remainder of the power available from the battery charge controller.

The claims of the '514 Patent, by contrast, recite “respond[ing] to a voltage drop” but do not recite measuring a voltage drop. For example, Claim 1 of the '514 Patent recites (emphasis added):

1. A battery charging circuit comprising:
 - a switch having an output connected to a rechargeable battery and configurable to isolate the rechargeable battery from a portable device;
 - a battery charge controller configured to receive power from an external power source and supply output power to the portable device; and
 - a *voltage sensing circuit* configured to:
 - respond to a voltage drop across the battery charge controller by modulating the switch to control a quantity of current supplied to the rechargeable battery* such that the portable device receives a predetermined amount of power to operate and the rechargeable battery receives a remainder of the power available from the battery charge controller.

The effect of Defendants’ proposed construction, then, would be to import the “measures the voltage drop across the battery charge controller” limitation into the claims of the '514 Patent. Given that each claim of these patents already expressly recites how the “voltage sensing circuit” is configured, Defendants’ proposal of construing this term according to a particular configuration is unwarranted.

At the March 26, 2018 hearing, Defendants highlighted the Court’s finding in *Samsung* that “voltage sensing circuit 30” was corresponding structure for means-plus-function terms that including both “measuring” and “responding” functions. Defendants have not shown how this corresponding structure finding as to the particular disclosed “voltage sensing circuit 30” necessarily implies that the term “voltage sensing circuit” must have particular functionality. In other words, Defendants have not shown why the term “voltage sensing circuit” should be limited to the particular “voltage sensing circuit 30” disclosed in the specification. The cited prosecution history statements as to “voltage sensing circuit 30” are similarly unpersuasive. *See* Dkt. No. 127, Ex. 27, Nov. 2, 2007 Response to Office Action Dated August 3, 2007 at 11.

Finally, Defendants have argued that “there is no support in the specification for a ‘voltage sensing circuit’ that measures the voltage drop across the battery charge controller, but does not respond to the measurement, and vice versa.” Dkt. No. 127 at 21. Defendants’ expert has opined that: “A voltage sensing circuit, as defined by the ’319 patent, must measure the voltage drop across the battery charge controller and also respond to such measurement. The invention as claimed is otherwise inoperable.” Dkt. No. 127, Ex. 12, Feb. 21, 2018 Dezmelyk Decl. at ¶ 180. As a general matter, “[a] construction that renders the claimed invention inoperable should be viewed with extreme skepticism.” *AIA Eng’g Ltd. v. Magotteaux Int’l S/A*, 657 F.3d 1264, 1278 (Fed. Cir. 2011) (quoting *Talbert Fuel Sys. Patents Co. v. Unocal Corp.*, 275 F.3d 1371, 1376 (Fed. Cir. 2002), *vacated and remanded on other grounds*, 537 U.S. 802 (2002)). Here, however, Defendants have not adequately or persuasively explained how the claims of the ’514 Patent would be inoperable if not construed so as to require measuring. At best, Defendants’ argument may perhaps bear upon issues of written description or enablement, but Defendants have not demonstrated that any claim construction is warranted in this regard.

The Court therefore hereby expressly rejects Defendants’ proposed construction. No further construction is necessary, particularly in light of the context provided by surrounding claim language as to how the voltage sensing circuit is “configured.” *See U.S. Surgical Corp.*, 103 F.3d at 1568; *see also O2 Micro*, 521 F.3d at 1362; *Finjan*, 626 F.3d at 1207; *ActiveVideo*, 694 F.3d at 1326; *Summit 6*, 802 F.3d at 1291.

The Court therefore hereby construes “**voltage sensing circuit**” to have its **plain meaning**.

Z. “wherein the supply current passes through the external driving semiconductor rather than through the battery charge controller” and “whereby load current passes through the external driving semiconductor instead of the battery charge controller”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
“external driving semiconductor”: “a semiconductor circuit element that is outside the circuitry responsible for managing battery charging and through which current passes under the control of the circuitry responsible for managing battery charging”; the remainder of the term requires no additional construction necessary at this time (i.e., plain and ordinary meaning in light of the intrinsic evidence)”	Defendants adopt the Court’s construction from the <i>Samsung</i> litigation. 2:17-cv-00145 (D.I. 140). Indefinite

Dkt. No. 103, Ex. A2 at 42; *id.*, Ex. B2 at 9; Dkt. No. 123 at 78; Dkt. No. 135, Ex. A2 at 1–2.

The parties submit that these terms appear in Claim 2 of the ’319 Patent and Claim 2 of the ’514 Patent. Dkt. No. 103, Ex. A2 at 41–42; *id.*, Ex. B2 at 9–10; Dkt. No. 127 at 21; Dkt. No. 135, Ex. A2 at 1–3.

In *Samsung*, the Court found that these terms render these claims indefinite. *See Samsung* at 75–78.

Shortly before the start of the March 26, 2018 hearing, the Court provided the parties with the following preliminary construction: “Indefinite.”

(1) The Parties’ Positions

Plaintiff argues that “when the specification teaches receiving power from an external power source and supplying the received power, electrons are not required to literally flow through the battery charge controller. Rather, they may flow through an external driving element controlled by the battery charge controller.” Dkt. No. 123 at 25.

Defendants respond that they agree with the Court’s analysis in *Samsung*. Dkt. No. 127 at 22. Defendants submit that Plaintiff here makes the same arguments that the Court rejected in *Samsung*. *Id.*

Plaintiff replies that “[t]he ’514 patent expressly discloses embodiments (*e.g.*, Figure 6), in which power passes through an external driving element.” Dkt. No. 130 at 8.

At the March 26, 2018 hearing, the parties presented oral arguments as to these terms.

(2) Analysis

Samsung addressed substantially the same arguments that Plaintiff has presented here. *See Samsung* at 75–78. The Court reaches the same conclusion here as in *Samsung* for the same reasons set forth in *Samsung*. *See id.*

The Court thus finds that the terms **“wherein the supply current passes through the external driving semiconductor rather than through the battery charge controller”** and **“whereby load current passes through the external driving semiconductor instead of the battery charge controller”** render Claim 2 of the ’319 Patent and Claim 2 of the ’514 Patent indefinite.

AA. Preambles

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
Preambles of Claims 1–19 of the ’319 Patent and Claims 1–17 and 20 of the ’514 Patent are not limiting.	The preambles are limiting.

Dkt. No. 123 at 25; *see* Dkt. No. 135, Ex. A2 at 8.

This dispute does not appear to have arisen in *Samsung*.

Shortly before the start of the March 26, 2018 hearing, the Court provided the parties with the following preliminary construction: “Not limiting.”

(1) The Parties' Positions

Plaintiff argues:

Defendants argue that all preambles are limiting. This is incorrect. For example, claims 1–19 of the '319 patent and claims 1–17 and 20 of the '514 patent are directed to a “battery charging circuit” or a “power supply circuit.” These preambles are not referenced in the body of the claim or relied on during prosecution. They are not limiting. *Symantec*, 522 F.3d at 1288–89.

Dkt. No. 123 at 25.

Defendants respond that the patentee relied on preamble language during prosecution of the '319 Patent. Dkt. No. 127 at 27.

At the March 26, 2018 hearing, the parties did not present any oral arguments as to these terms.

(2) Analysis

The terms “battery charging circuit” and “power supply circuit” do not appear in the bodies of these claims, so the preambles do not provide any antecedent basis. On balance, these preambles “merely give[] a name” to the claimed structure. *Deere & Co. v. Bush Hog, LLC*, 703 F.3d 1349, 1358 (Fed. Cir. 2012) (citation and internal quotation marks omitted); *see IMS Tech., Inc. v. Haas Automation, Inc.*, 206 F.3d 1422, 1434 (Fed. Cir. 2000).

Defendants have cited prosecution history in which the patentee referred to “the circuit of the invention.” Dkt. No. 127, Ex. 27, Response to Office Action Dated August 3, 2007 at 13. Defendants have not demonstrated that the patentee relied upon the complete phrase “battery charging circuit” ('319 Patent, Claims 1–19; '514 Patent, Claims 1–17) or “power supply circuit” ('514 Patent, Claim 20). No disclaimer or reliance upon the preamble terms here at issue is apparent. *See Omega Eng'g*, 334 F.3d at 1324 (“As a basic principle of claim interpretation,

prosecution disclaimer promotes the public notice function of the intrinsic evidence and protects the public's reliance on *definitive* statements made during prosecution.”) (emphasis added).

The Court therefore hereby finds that **the preambles of Claims 1–19 of the ’319 Patent and Claims 1–17 and 20 of the ’514 Patent are not limiting.**

BB. “means for receiving power from the USB port”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
Function: “receiving power from the USB port” Structure: “battery charge controller 20; and equivalents thereof” ³⁴	Function: “receiving power from the USB port” Structure: “NCP1800 battery charge controller and its associated external driving element, or the Texas Instruments bq24020 Lithium Ion battery charge controller”

Dkt. No. 103, Ex. B2 at 11; Dkt. No. 123 at 25. The parties submit that this term appears in Claim 20 of the ’319 Patent. Dkt. No. 103, Ex. A2 at 47; *id.*, Ex. B2 at 11; Dkt. No. 135, Ex. A2 at 5.

Plaintiff has proposed the construction that the Court reached in *Samsung*. *Samsung* at 83.

In their March 9, 2018 Joint Claim Construction Chart, the parties submit that they have agreed to the *Samsung* construction. Dkt. No. 135, Ex. A2 at 5. Shortly before the start of the March 26, 2018 hearing, the Court provided the parties with a preliminary construction identical to the *Samsung* construction. At the hearing, no party objected to this construction.

³⁴ Plaintiff previously proposed: “battery charge controller; and the equivalents thereof.” Dkt. No. 103, Ex. A2 at 47.

The Court therefore hereby finds that **“means for receiving power from the USB port”** is a means-plus-function term, the claimed function is **“receiving power from the USB port,”** and the corresponding structure is **“battery charge controller 20, and equivalents thereof.”**

CC. “means for supplying the received power to the rechargeable battery and to the portable device, wherein the supplied power is limited such that the rechargeable battery and the portable device may not draw more than a pre-determined maximum amount of current available from the USB port”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
<p>Function: “supplying the received power to the rechargeable battery and to the portable device, wherein the supplied power is limited such that the rechargeable battery and the portable device may not draw more than a pre-determined maximum amount of current available from the USB port”</p> <p>Structure: “battery charge controller 20; and equivalents thereof”³⁵</p>	<p>Function: “supplying the received power to the rechargeable battery and to the portable device, wherein the supplied power is limited such that the rechargeable battery and the portable device may not draw more than a pre-determined maximum amount of current available from the USB port”</p> <p>Structure: “NCP1800 battery charge controller or Texas Instruments bq24020 Lithium Ion battery charge controller in coordination with resistors R2, R3, and R4 between ISEL and ground”</p>

Dkt. No. 103, Ex. B2 at 12; Dkt. No. 123 at 26. The parties submit that this term appears in Claim 20 of the ’319 Patent. Dkt. No. 103, Ex. A2 at 51–52; *id.*, Ex. B2 at 12; Dkt. No. 135, Ex. A2 at 5–6.

³⁵ Plaintiff previously proposed: “a battery charge controller in coordination with hardware such as a resistor to ground, a battery charge controller receiving programmable current limits, programmable devices such as digital signal processors (DSPs), micro-controller (including microcontroller with an DAC that can control battery charge controller current output), field programmable gate arrays (FPGAs), application specific integrated circuits (ASICs) and the like with programmed instructions that control current output level of battery charge controller embodied as sets of executable machine code stored as object or source code, integrated with the code of other programs, implemented as subroutines, by external program calls or HDLs; and equivalents thereof.” Dkt. No. 103, Ex. A2 at 51–53.

Plaintiff has proposed the construction that the Court reached in *Samsung*. *Samsung* at 85.

In their March 9, 2018 Joint Claim Construction Chart, the parties submit that they have agreed to the *Samsung* construction. Dkt. No. 135, Ex. A2 at 5–6. Shortly before the start of the March 26, 2018 hearing, the Court provided the parties with a preliminary construction identical to the *Samsung* construction. At the hearing, no party objected to this construction.

The Court therefore hereby finds that **“means for supplying the received power to the rechargeable battery and to the portable device, wherein the supplied power is limited such that the rechargeable battery and the portable device may not draw more than a pre-determined maximum amount of current available from the USB port”** is a means-plus-function term, the claimed function is **“supplying the received power to the rechargeable battery and to the portable device, wherein the supplied power is limited such that the rechargeable battery and the portable device may not draw more than a pre-determined maximum amount of current available from the USB port,”** and the corresponding structure is **“battery charge controller 20, and equivalents thereof.”**

DD. “means for both isolating the rechargeable battery from the portable device and controlling an amount of current supplied to the rechargeable battery such that the portable device receives a pre-determined amount of the received power needed to operate and the rechargeable battery receives a remainder of the received power”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
<p>Function: “isolating the rechargeable battery from the portable device and controlling an amount of current supplied to the rechargeable battery such that the portable device receives a pre-determined amount of the received power needed to operate and the rechargeable battery receives a remainder of the received power”</p> <p>Structure: “switch Q1 and voltage sensing circuit 30 or micro-controllers with integral analog to digital converters; or switch Q3 and a sensing circuit consisting of op amp 52, resistors R5 and R6 and capacitor C1; or switch Q908 and comparator U905, and equivalents thereof”³⁶</p>	<p>Function: “both isolating the rechargeable battery from the portable device and controlling an amount of current supplied to the rechargeable battery such that the portable device receives a pre-determined amount of the received power needed to operate and the rechargeable battery receives a remainder of the received power”</p> <p>Structure: Indefinite</p>

Dkt. No. 103, Ex. B2 at 12; Dkt. No. 123 at 26; Dkt. No. 135, Ex. A2 at 6–7. The parties submit that this term appears in Claim 20 of the ’319 Patent. Dkt. No. 103, Ex. A2 at 57–58; *id.*, Ex. B2 at 12–13; Dkt. No. 135, Ex. A2 at 6–7.

In *Samsung*, the Court found that “the claimed function is ‘both isolating the rechargeable battery from the portable device and controlling an amount of current supplied to the rechargeable battery such that the portable device receives a pre-determined amount of the

³⁶ Plaintiff previously proposed: “a switch under control of a voltage sensing circuit which may include an op amp or a comparator; a programmable device such as a DSP, an FPGA, a microcontroller with integral ADCs or an ASCI that has programmed instructions that can measure voltage drop across battery charge controller and respond to such drop by modulating semiconductor switch to reduce current to rechargeable battery when voltage drop is too great, where the programmable instructions are embodied as sets of executable machine code stored as object or source code, integrated with the code of other programs, implemented as subroutines, by external program calls or HDLs; and equivalents thereof.” Dkt. No. 103, Ex. A2 at 58–59.

received power needed to operate and the rechargeable battery receives a remainder of the received power,’ and the corresponding structure is ‘switch Q1 and voltage sensing circuit 30; and equivalents thereof.’” *Samsung* at 89.

Shortly before the start of the March 26, 2018 hearing, the Court provided the parties with a preliminary construction identical to the *Samsung* construction.

(1) The Parties’ Positions

Plaintiff argues:

Defendants assert that the limitation is indefinite, but the structure associated with this claim is expressly described in ’319 patent at Figures 4–8, 5:34–6:8, 7:20–31, 7:53–55, 8:13–36, 10:18–24, 12:52–13:5, 13:15–22, 13:41–67; Ex. 23 at originally filed claims 1, 3, 4, 5 & 10; Tutorial Slides #37–38, 44, 62–64, 66–68; Ex. 10, ¶¶ 137–138 (ensuring the portable of a minimum system voltage also assures it of a predetermined amount of received power needed to operate), ¶¶ 139–140 (explaining “a remainder”).

Dkt. No. 123 at 26.

Defendants respond that there is no corresponding structure because “[t]he ’319 discloses the opposite, namely that power for operating the portable device is dynamically adjusted, not ‘predetermined.’” Dkt. No. 127 at 29 (citing ’319 Patent at 9:8–9). Further, Defendants argue that “[e]ven if a predetermined amount of power needed to operate was disclosed, the patents provide no structure for how to achieve a result whereby the portable device receives such an amount of power.” *Id.* at 29–30.

At the March 26, 2018 hearing, the parties did not present any oral arguments as to this term.

(2) Analysis

Defendants have not sufficiently justified departing from the *Samsung* analysis or otherwise shown indefiniteness. *See Samsung* at 86–89. Likewise, Plaintiff has not persuasively

demonstrated that the corresponding structure should be expanded beyond “switch Q1” and “voltage sensing circuit 30.” *See id.* at 87–89; *see also Med. Instrumentation*, 344 F.3d at 1219 (“[S]tructure disclosed in the specification is ‘corresponding’ structure only if the specification or prosecution history *clearly links or associates* that structure to the function recited in the claim.”) (emphasis added; citation and internal quotation marks omitted).

The Court therefore hereby finds that **“means for both isolating the rechargeable battery from the portable device and controlling an amount of current supplied to the rechargeable battery such that the portable device receives a pre-determined amount of the received power needed to operate and the rechargeable battery receives a remainder of the received power”** is a means-plus-function term, the claimed function is **“both isolating the rechargeable battery from the portable device and controlling an amount of current supplied to the rechargeable battery such that the portable device receives a pre-determined amount of the received power needed to operate and the rechargeable battery receives a remainder of the received power,”** and the corresponding structure is **“switch Q1 and voltage sensing circuit 30; and equivalents thereof.”**

EE. “means for measuring a voltage drop across a battery charge controller providing power to a portable device and an input of a switch in parallel”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
<p>Function: “measuring a voltage drop across a battery charge controller providing power to a portable device and an input of a switch in parallel”</p> <p>Structure: “voltage sensing circuit 30; or a sensing circuit consisting of op amp 52, resistors R5 and R6 and capacitor C1; comparator U905; or micro-controllers with integral analog to digital converters, and equivalents thereof”³⁷</p>	<p>Defendants adopt the Court’s construction from the Samsung litigation. 2:17-cv-00145 (D.I. 140).</p> <p>Function: “measuring a voltage drop across a battery charge controller providing power to a portable device and an input of a switch in parallel”</p> <p>Structure: “voltage sensing circuit 30, and equivalents thereof”³⁸</p>

Dkt. No. 103, Ex. B2 at 13; Dkt. No. 123 at 27; Dkt. No. 135, Ex. A2 at 7. The parties submit that this term appears in Claim 20 of the ’319 Patent. Dkt. No. 103, Ex. A2 at 64; *id.*, Ex. B2 at 13; Dkt. No. 135, Ex. A2 at 7.

In *Samsung*, the Court found that “the claimed function is ‘measuring a voltage drop across a battery charge controller providing power to a portable device and an input of a switch in parallel,’ and the corresponding structure is ‘voltage sensing circuit 30, and equivalents thereof.’” *Samsung* at 92.

³⁷ Plaintiff previously proposed: “a voltage sensing circuit that may include an op amp and voltage divider or a programmable device such as an FGPG, an ASIC, a DSP and a microcontroller with integral ADCs that has programmed instructions that can measure voltage drop across battery charge controller, where the programmable instructions are embodied as sets of executable machine code stored as object or source code, integrated with the code of other programs, implemented as subroutines, by external program calls or HDLs; and equivalents thereof.” Dkt. No. 103, Ex. A2 at 64–65.

³⁸ Defendants previously proposed that the corresponding structure is “Fig. 4: ’319 at 5:55–60; ’319 at 13:43–44.” Dkt. No. 103, Ex. B2 at 13.

Shortly before the start of the March 26, 2018 hearing, the Court provided the parties with a preliminary construction identical to the *Samsung* construction.

(1) The Parties' Positions

Plaintiff argues: “Defendants ignore the express structure recited in Figs. 6, 7 and 8. Ex. 10, ¶¶ 141–143; Ex. 5 [’319], 5:33–42, 5:55–64, 8:13–28, 10:18–24, 12:52–13:5, 13:15–22, 13:41–45 (microcontrollers with integral ADCs can measure voltage drop), 13:60–14:5; Ex. 23, claims 1, 3, 4, 5 & 10.” Dkt. No. 123 at 27.

Defendants’ response brief does not address this term. *See* Dkt. No. 127.

At the March 26, 2018 hearing, the parties did not present any oral arguments as to this term.

(2) Analysis

Defendants have not presented arguments as to this term, but Plaintiff has not sufficiently justified departing from the analysis and conclusions reached in *Samsung*. *See Samsung* at 90–92; *see also Med. Instrumentation*, 344 F.3d at 1219 (“[S]tructure disclosed in the specification is ‘corresponding’ structure only if the specification or prosecution history *clearly links or associates* that structure to the function recited in the claim.”) (emphasis added; citation and internal quotation marks omitted).

The Court therefore hereby finds that **“means for measuring a voltage drop across a battery charge controller providing power to a portable device and an input of a switch in parallel”** is a means-plus-function term, the claimed function is **“measuring a voltage drop across a battery charge controller providing power to a portable device and an input of a switch in parallel,”** and the corresponding structure is **“voltage sensing circuit 30, and equivalents thereof.”**

FF. “means for responding to the voltage drop across the battery charge controller by modulating the switch to control a quantity of current supplied to a rechargeable battery such that the portable device receives a predetermined amount of power to operate and the rechargeable battery receives a remainder of power available from the battery charge controller”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
<p>Function: “[responding to the] voltage drop across the battery charge controller by modulating the switch to control a quantity of current supplied to a rechargeable battery such that the portable device receives a predetermined amount of power to operate and the rechargeable battery receives a remainder of power available from the battery charge controller”</p> <p>Structure: “voltage sensing circuit 30; or a sensing circuit consisting of op amp 52, resistors R5 and R6 and capacitor C1; comparator U905; or micro-controllers with integral analog to digital converters, and equivalents thereof”³⁹</p>	<p>Function: “responding to the voltage drop across the battery charge controller by modulating the switch to control a quantity of current supplied to a rechargeable battery such that the portable device receives a predetermined amount of power to operate and the rechargeable battery receives a remainder of power available from the battery charge controller”</p> <p>Structure: Indefinite</p>

Dkt. No. 103, Ex. B2 at 13–14; Dkt. No. 123 at 27; Dkt. No. 135, Ex. A2 at 7–8. The parties submit that this term appears in Claim 20 of the ’319 Patent. Dkt. No. 103, Ex. A2 at 72–73; *id.*, Ex. B2 at 13–14; Dkt. No. 135, Ex. A2 at 7–8.

In *Samsung*, the Court found that “the claimed function is ‘responding to the voltage drop across the battery charge controller by modulating the switch to control a quantity of current

³⁹ Plaintiff previously proposed: “a voltage sensing circuit that includes an op amp or a comparator or a programmable device such as a DSP, an FPGA, an ADC, or a microcontroller programmed instructions that can respond to a voltage drop across the battery charge controller by modulating semiconductor switch to reduce current to rechargeable battery when voltage drop is too great, where the programmable instructions are embodied as sets of executable machine code stored as object or source code, integrated with the code of other programs, implemented as subroutines, by external program calls or HDLs; and equivalents thereof.” Dkt. No. 103, Ex. A2 at 73–74.

supplied to a rechargeable battery such that the portable device receives a predetermined amount of power to operate and the rechargeable battery receives a remainder of power available from the battery charge controller,’ and the corresponding structure is ‘voltage sensing circuit 30, and equivalents thereof.’” *Samsung* at 94–95.

Shortly before the start of the March 26, 2018 hearing, the Court provided the parties with a preliminary construction identical to the *Samsung* construction.

(1) The Parties’ Positions

Plaintiff argues: “The structure associated with this claim is expressly described in ’319 patent at Figures 4–8, 5:34–6:8, 7:20–31, 7:53–55, 8:13–36, 10:18–24, 12:52–13:5, 13:15–22, 13:41–67, and originally filed claims 1, 3, 4, 5 & 10. *See also* Ex. 10, ¶¶ 137–138, 144.” Dkt. No. 123 at 27.

Defendants argue this term together with the “means for both isolating . . .” term, which is addressed above. *See* Dkt. No. 127 at 29–30.

Plaintiff replies that “the Court previously found that a POSA would understand that a ‘pre-determined’ amount of power is definite and refers to the amount ‘needed for proper operation.’” Dkt. No. 130 at 10 (citing *Samsung* at 89).

At the March 26, 2018 hearing, the parties did not present any oral arguments as to this term.

(2) Analysis

Defendants have not sufficiently justified departing from the *Samsung* analysis or otherwise shown indefiniteness. *See Samsung* at 93–95. Likewise, Plaintiff has not sufficiently justified expanding the corresponding structure beyond “voltage sensing circuit 30.” *See id.* at 95; *see also Med. Instrumentation*, 344 F.3d at 1219 (“[S]tructure disclosed in the

specification is ‘corresponding’ structure only if the specification or prosecution history *clearly links or associates* that structure to the function recited in the claim.”) (emphasis added; citation and internal quotation marks omitted).

The Court accordingly hereby finds that **“means for responding to the voltage drop across the battery charge controller by modulating the switch to control a quantity of current supplied to a rechargeable battery such that the portable device receives a predetermined amount of power to operate and the rechargeable battery receives a remainder of power available from the battery charge controller”** is a means-plus-function term, the claimed function is **“responding to the voltage drop across the battery charge controller by modulating the switch to control a quantity of current supplied to a rechargeable battery such that the portable device receives a predetermined amount of power to operate and the rechargeable battery receives a remainder of power available from the battery charge controller,”** and the corresponding structure is **“voltage sensing circuit 30, and equivalents thereof.”**

VI. CONSTRUCTION OF DISPUTED TERMS IN THE ’655 PATENT

GG. “USB”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
[No separate proposal as to the ’655 Patent]	“USB is an abbreviation for ‘Universal Serial Bus,’ which is a computer standard technology described in Universal Serial Bus Specification Revision 2.0 and other versions of this standard promulgated at the time of the claimed invention.”

Dkt. No. 103, Ex. B2 at 1. Defendants submit that this term appears in Claims 3, 5, and 6 of the ’655 Patent. Dkt. No. 103, Ex. B2 at 1.

In *Samsung*, the Court construed this term to mean “Universal Serial Bus as described in Universal Serial Bus Specification Revision 2.0 and related versions of this standard at the time of the claimed invention.” *Samsung* at 96.

In the parties’ March 9, 2018 Joint Claim Construction Chart, the parties submit that they have agreed upon applying the *Samsung* construction. Dkt. No. 135, Ex. A2 at 4. Shortly before the start of the March 26, 2018 hearing, the Court provided the parties with a preliminary construction identical to the *Samsung* construction. At the hearing, no party objected to this construction.

The Court accordingly hereby construes “USB” to mean **“Universal Serial Bus as described in Universal Serial Bus Specification Revision 2.0 and related versions of this standard at the time of the claimed invention.”**

HH. “USB-compliant charging and power supply circuit”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
Not a limit; but if a limit, and if a construction is necessary, “USB-compliant” means “permitting the electronic system to talk over USB”	The preambles are limiting.

Dkt. No. 103, Ex. A3 at 1; *id.*, Ex. B2 at 15. Plaintiff submits that this term appears in Claim 3 of the ’655 Patent and dependent claims. Dkt. No. 103, Ex. A3 at 1.

In *Samsung*, the Court found that this preamble term is not limiting. *Samsung* at 98.

Shortly before the start of the March 26, 2018 hearing, the Court provided the parties with the following preliminary construction: “Not limiting.”

(1) The Parties’ Positions

Plaintiff argues that “‘USB-compliant’ is a statement of intended purpose that was not relied on during prosecution and is not referenced back in the body of the ’655 claims,” and

“[t]he body of the claims define a structurally complete invention such that deletion of the preamble phrase does not affect the structure of the claimed invention.” Dkt. No. 123 at 27–28.

Defendants respond that “[i]n the ’655 background, the patentee made it clear that there were reasons to choose USB ports, to supply charging power to mobile devices rather than using an AC charger and that USB can only provide limited power.” Dkt. No. 127 at 28 (citing ’655 Patent at 1:17–26).

At the March 26, 2018 hearing, the parties did not present any oral arguments as to this term.

(2) Analysis

Samsung addressed substantially the same arguments that Defendants have presented here. *See Samsung* at 96–98. The Court reaches the same conclusion here as in *Samsung* for the same reasons set forth in *Samsung*. *See id.*; *see also* ’655 Patent at 2:32–34 (“in one embodiment”) & 6:22–24 (“example circuit”).

The Court accordingly hereby finds that **the term “USB-compliant charging and power supply circuit” is not limiting.**

II. “power”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
FISI adopts the Court’s construction from the <i>Samsung</i> litigation. 2:17-cv-00145 (D.I. 140). “electricity” ⁴⁰	“product of voltage and current”

⁴⁰ Plaintiff previously proposed: “No additional construction necessary at this time (*i.e.*, plain and ordinary meaning in light of the intrinsic evidence).” Dkt. No. 103, Ex. A3 at 6.

Dkt. No. 103, Ex. B2 at 5; Dkt. No. 123 at 28; Dkt. No. 135, Ex. A2 at 3. Defendants submit that this term appears in Claims 3, 5, 6, and 8 of the '655 Patent. Dkt. No. 103, Ex. B2 at 5; *see* Dkt. No. 135, Ex. A2 at 3; *see also id.*, Ex. A3 at 6 (“‘655, all claims”).

In *Samsung*, the Court construed this term to mean “electricity.” *Samsung* at 99.

Shortly before the start of the March 26, 2018 hearing, the Court provided the parties with the following preliminary construction: “electricity.”

(1) The Parties’ Positions

Plaintiff argues:

The '319 patent family and the '655 patent have different specifications, different inventive groups and different priority dates. Despite this, Defendant[s] recapitulate[] the same idiosyncratic construction of “power” as meaning voltage times current. This makes no sense. As the Court previously found, power simply means “electricity.” [*Samsung*] at 99; *see also* Ex. 10, ¶¶ 157–158.

Dkt. No. 123 at 28.

Defendants respond as to this term together with the same term in the '319 Patent. *See* Dkt. No. 127 at 22–24.

At the March 26, 2018 hearing, the parties did not present any oral arguments as to this term in the '655 Patent apart from the parties’ arguments as to the same term in the above-discussed '319 Patent Family.

(2) Analysis

Samsung addressed substantially the same arguments that Defendants have presented here. *See Samsung* at 59–61 & 99. The Court reaches the same conclusion here as in *Samsung* for the same reasons set forth in *Samsung*. *See id.* Also, Defendants have not shown that the '655 Patent contains any “product of voltage drop and current” disclosures comparable to disclosures relied upon by Defendants as the term “power” in the above-discussed '319 Patent

Family. Instead, Defendants have discussed the deposition testimony of Plaintiff’s expert.

Compare Dkt. No. 127 at 24 *with id.* at 23. Defendants’ argument as to purported indefiniteness arising from Plaintiff’s expert’s deposition testimony is unpersuasive. *See id.* at 24; *see also id.*, Ex. 17, Jan. 23, 2018 Fernald dep. at 139:1–16, 142:15–23, 144:8–24 & 145:18–24.

The Court therefore hereby construes “**power**” to mean “**electricity.**”

JJ. “reference voltage”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
FISI adopts the Court’s construction from the <i>Samsung</i> litigation. 2:17-cv-00145 (D.I. 140). “a voltage level against which a voltage of interest is compared” ⁴¹	“a voltage against which a voltage of interest is compared” ⁴²

Dkt. No. 135, Ex. A2 at 4. Defendants submit that this term appears in Claims 3 and 8 of the ‘655 Patent. Dkt. No. 103, Ex. B2 at 8; *id.*, Ex. A3 at 10 (“‘655, all claims”); *see* Dkt. No. 127 at 25 (“‘655: 1, 3, 8”).

In *Samsung*, the Court construed this term to mean “a voltage level based on which a voltage of interest is determined.” *Samsung* at 101.

Shortly before the start of the March 26, 2018 hearing, the Court provided the parties with a preliminary construction identical to the *Samsung* construction.

⁴¹ Plaintiff previously proposed: “a voltage level based on which a voltage of interest is determined.” Dkt. No. 103, Ex. A3 at 10; Dkt. No. 123 at 28.

⁴² Defendants previously proposed: “a constant voltage used for comparison purposes.” Dkt. No. 103, Ex. B2 at 8.

(1) The Parties' Positions

Plaintiff argues: “In the ’319 patent family . . . , a reference voltage is used to compare against a voltage. In the ’655 [Patent], the reference voltage is used to ‘determine a minimum voltage value needed at [an] output node.’ ’655 [Patent], Claim 1. There is no requirement that the determination be done through a comparison.” Dkt. No. 123 at 28. Plaintiff further argues that “the ’655 patent makes clear that the reference voltage received from an electronic system could be information related to a voltage level (*e.g.*, a representation of the voltage level as digital data).” *Id.* at 29.

Defendants respond as to this term together with the terms “reference voltage” and “reference voltage signal” in the ’319 Patent Family, and Defendants urge that “the [*Samsung*] construction [as to the ’319 Patent Family] should apply equally to the ’655 patent.” Dkt. No. 127 at 25; *see id.* at 25–27. Defendants argue that “[t]he determining element in the claims is entirely consistent with the reference voltage being an analog voltage.” *Id.* at 27.

Plaintiff replies:

Defendants appear to have abandoned the argument that a reference voltage must be a *constant* voltage, but insist that the ’655 claims require an analog voltage, rather than a voltage value or voltage level (*e.g.*, a digital representation of a voltage). Defendants ignore the numerous examples in the intrinsic evidence, cited in FISI’s opening brief, demonstrating that the reference voltage of the ’655 patent may be a representation of a voltage, rather than the voltage itself.

Dkt. No. 130 at 10 (citations omitted).

At the March 26, 2018 hearing, the parties presented oral arguments as to this term.

(2) Analysis

Samsung addressed substantially the same arguments that Defendants have presented here. *See Samsung* at 100–01. The Court reaches the same conclusion here as in *Samsung* for the same reasons set forth in *Samsung*. *See id.*; *see also id.* at 101 (“the context of this

surrounding claim language demonstrates that ‘reference voltage’ in the claims of the ’655 Patent can be a voltage level, as Plaintiff has proposed, rather than necessarily an actual electrical voltage”). The recitals of “voltage value” in Claim 1 of the ’655 Patent, cited by Defendants, as well as the disclosures in the specification cited by Defendants, do not compel otherwise. Dkt. No. 127 at 25–26; *see* ’655 Patent at 6:47–53 & 7:50–57.

Likewise, Defendants’ reliance upon Plaintiff’s expert’s testimony regarding microprocessor voltage outputs is unpersuasive. *See* Dkt. No. 127, Ex. 17, Jan. 23, 2018 Fernald dep. at 178:12–179:4, 179:19–180:7 & 181:19–182:12 (“all microprocessors are digital”; “[s]ome have analog capability added to them”).

At the March 26, 2018 hearing, Defendants urged that the *Samsung* construction renders the “determine” step in these claims superfluous. Defendants’ argument, however, appears to assume that the determined “minimum voltage value” is set the same as the “reference voltage” value. No such limitation is recited in the claims, and Defendants have not demonstrated, through disclaimer or otherwise, why this must necessarily be so. Defendants’ argument is thus unavailing.

Finally, to whatever extent Defendants maintain that these terms should be construed as requiring a “constant” voltage (*see* Dkt. No. 103, Ex. B2 at 8), Defendants have not justified any such limitation.

The Court therefore hereby construes **“reference voltage”** in the ’655 Patent to mean **“a voltage level based on which a voltage of interest is determined.”**

KK. “a switch” and “a semiconductor switch”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
“a switch”: Plain meaning ⁴³	“a switch”: “single switch” “a semiconductor switch”: “single semiconductor switch”

Dkt. No. 103, Ex. B2 at 4; Dkt. No. 123 at 30. The parties submit that these terms appear in Claims 3–11 of the ’655 Patent. Dkt. No. 103, Ex. A3 at 2; *see id.*, Ex. B2 at 4 (“’655: 3, 6, 8, 10, 11”).

In *Samsung*, the Court construed these terms to have their plain meaning. *Samsung* at 102.

In their March 9, 2018 Joint Claim Construction Chart, the parties submit that they have agreed upon the following construction: “Plain and ordinary meaning; no construction necessary.” Dkt. No. 135, Ex. A2 at 4. Shortly before the start of the March 26, 2018 hearing, the Court provided the parties with the following preliminary construction: “Plain and ordinary meaning; no construction necessary.” At the March 26, 2018 hearing, no party objected to this construction.

The Court therefore hereby construes **“a switch”** and **“a semiconductor switch”** as follows: **“Plain and ordinary meaning; no construction necessary.”**

⁴³ Plaintiff previously proposed: “‘a switch’: one or more devices or circuits that control conductance between two nodes and that are capable of operating in on, off and non-transient linear modes;” and “‘semiconductor switch’: switch as defined above that comprises a semiconductor material.” Dkt. No. 103, Ex. A3 at 2–3.

LL. “adjust”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
Plain and ordinary meaning; no construction necessary	“change”

Dkt. No. 103, Ex. A3 at 9; *id.*, Ex. B2 at 6; Dkt. No. 123 at 30; Dkt. No. 127 at 30; Dkt. No. 135, Ex. A2 at 8. The parties submit that this term appears in Claim 5 of the ’655 Patent. Dkt. No. 103, Ex. A3 at 9; *id.*, Ex. B2 at 6; Dkt. No. 135, Ex. A2 at 8.

This term was not presented as a disputed term in *Samsung*.

Shortly before the start of the March 26, 2018 hearing, the Court provided the parties with the following preliminary construction: “change.”

(1) The Parties’ Positions

Plaintiff submits that “[i]f the voltage at the output deviates slightly from the desired output voltage, the IC senses this through the feedback and makes the appropriate adjustments to return the voltage to the desired value.” Dkt. No. 123 at 30. Plaintiff argues that “[t]hus, the claim does not require that the output voltage be changed.” *Id.*

Defendants respond that “FISI’s reasoning does not support its conclusion and would render the limitation superfluous.” Dkt. No. 127 at 30.

Plaintiff replies that “Defendants do not explain why a jury could not understand this term from its plain meaning, and their construction finds no support in the intrinsic evidence.” Dkt. No. 130 at 10.

(2) Analysis

This disputed term appears in Claim 5 of the ’655 Patent, which depends from Claim 3. Claims 3 and 5 of the ’655 Patent recite (emphasis added):

3. A USB-compliant charging and power supply circuit comprising:
switch-mode battery charging circuitry adapted to:
 receive external power from an external power source; and
 supply output power, through an output node, to:
 an electronic system of an electronic
 communication device; and
 a battery, via a switch;
said switch-mode battery charging circuitry having an integrated circuit
and an inductor, said integrated circuit arranged to cooperate with said inductor to
supply said output power with a current of greater magnitude than current of said
external power;
battery isolation circuitry adapted to:
 receive a reference voltage from said electronic system;
 determine, based on said reference voltage, a minimum
 voltage value needed at said output node;
 sense that *a voltage at said output node* is below said
 minimum voltage value; and
 control, responsive to said sensing, said switch to restrict
 current of said output power to said battery, thereby
 increasing a power allocated to said electronic system.

* * *

5. The USB-compliant charging and power supply circuit of claim 3 wherein said
voltage at said output node is fed back to said integrated circuit and *in response*,
said integrated circuit is arranged to adjust said voltage value at said output
node.

Plaintiff appears to argue that “adjust[ing]” the voltage value can encompass maintaining a desired voltage value. Yet, as Defendants have argued, Plaintiff’s suggestion of “mak[ing] the appropriate adjustments to return the voltage to the desired value” (Dkt. No. 123 at 30) includes the concept of “changing” that Defendants have proposed. That is, “return[ing] the voltage to the desired value” involves changing the voltage from an undesired value to the desired value. This comports with the common meaning of “adjust” as involving a change. *See Phillips*, 415 F.3d at 1314 (“In some cases, the ordinary meaning of claim language as understood by a person of skill in the art may be readily apparent even to lay judges, and claim construction in such

cases involves little more than the application of the widely accepted meaning of commonly understood words.”).

The Court therefore hereby construes “**adjust**” to mean “**change**.”

VII. CONCLUSION

The Court adopts the constructions set forth in this opinion for the disputed terms of the patents-in-suit.

As set forth above, the Court finds that “wherein the supply current passes through the external driving semiconductor rather than through the battery charge controller” and “whereby load current passes through the external driving semiconductor instead of the battery charge controller” render Claim 2 of the ’319 Patent and Claim 2 of the ’514 Patent indefinite.

The parties are ordered to not refer to each other’s claim construction positions in the presence of the jury. Likewise, in the presence of the jury, the parties are ordered to refrain from mentioning any portion of this opinion, other than the actual definitions adopted by the Court. The Court’s reasoning in this order binds the testimony of any witnesses, and any reference to the claim construction proceedings is limited to informing the jury of the definitions adopted by the Court.

SIGNED this 2nd day of April, 2018.



ROY S. PAYNE
UNITED STATES MAGISTRATE JUDGE